

Dubia Roach Care Sheet

This care sheet describes the simple steps you can take to maintain the health of Dubia roach feeders.

Every Dubia roach we sell comes equipped with superior health and nutrition. However, health is perishable. Our Dubia roaches need to be maintained if you want to preserve their high nutritive value for more than a few weeks after purchase.

To be clear, Dubia roach feeders are very easy to care for. They can live for weeks and even months at room temperature with just a little food, moisture, and a dark space to hide. However, this is bare-bones survival. With just a little knowledge and modest effort, you can maintain not just survival, but the good health and exceptional nutrition your roaches came with.

NOTE: The following information is about maintaining Dubia roach feeders, not breeders. While there is some overlap between the two, breeding requires equipment and conditions beyond those covered here.

Temperature

Keep Dubia roach feeders between 60°F and 85°F. They can survive higher and lower temperatures, but they may become stressed. Stress affects Dubia roaches, and not for the better. Maintain this temperature range for maximum health and longevity. A location in your home that stays between 62°F and 72°F for most of the day, for example, would probably do nicely. Even better if the spot is dark, humid, and quiet.

Influence on growth

Keep your Dubia between 70°F and 85°F if you want them to grow faster. Within this range, the higher the temperature the faster they will grow. Keep them between 60°F and 70°F if you want to slow their growth. Dubia roaches kept at 60°F can take up to 10 times longer to complete an instar (growth cycle) than those kept at 85°F.

So, if you have more Dubia than you can feed off in a short time and you don't want them to outgrow your animal, keep them in a cool location. Keep them warm if you want them to grow.

External heat

The ideal temperature for Dubia roaches is about 85°F. Since room temperature in most homes is lower than this, people often boost the enclosure's temperature with external heat sources. The most common devices for increasing heat are heat mats, light bulbs, and ceramic heat emitters.

Be mindful of safety if you decide to provide external heat. Always follow manufacturer instructions and warnings. We don't recommend placing heating devices inside Dubia roach enclosures. Nothing roaches come in contact with should ever be hotter than 90°F. As a rule, Dubia roaches should be able to escape temperatures above 90°F. If they can't, their health may suffer.

Hydration

Dubia roach hydration needs can be satisfied by fresh fruits and vegetables, water, or both.

Fresh fruits & vegetables

To the extent that you can, provide a constant supply of fresh fruits or vegetables that all the roaches in the enclosure can access. Be sure to remove any remains before they become moldy.

Nutritional Note: Consider feeding your roaches plants containing the nutrients you ultimately want your animals to consume. For example, you might choose vegetables with lots of calcium or carotenoids if you think these nutrients will benefit your animals. Also keep in mind that for any animal, dietary diversity is probably better than monotony.

Water

If you don't give your roaches a constant supply of fresh fruits or vegetables, they will need supplemental water. You can provide water in several ways. Some common watering methods include water crystals, paper towels, and sponges.

To provide water, first find a saucer that all the roaches in the enclosure can access. It is very important that the smallest nymphs can reach the water because they are the most vulnerable to dehydration. A saucer that all roaches can get to is one with a short rim that they can step over, or one with textured sides they can climb. The saucer must retain water without leaking into the substrate below.

Place hydrated water crystals, paper towels, sponge, or whatever substrate you're using inside the saucer. Make sure there is no standing water at the bottom. Set this inside the enclosure, on the floor. Clean and replace every few days before it dries out, or before mold begins to grow. Dubia roaches can go long periods without water, but this may not be particularly healthy, and young nymphs need water more often than larger nymphs and adults.

Nutritional Note: If you plan on feeding off all of your roaches within a few weeks, water quality may not be important. However, if you keep them longer, you might consider distilled rather than tap water.

There are a lot of chemicals in tap water and we know very little about their long-term effects on ourselves – let alone insects, reptiles, amphibians, and the like. What's in your water depends on where you live, but a few common chemicals include chlorine, fluoride, pesticides, copper, lead, fertilizers, and prescription drugs. We simply avoid all the risks to roaches and herps by using only distilled water in our colonies. Dubia roaches don't drink a lot so a little will last a long time. And again, they can get enough moisture from fruits and vegetables.

Food

Feed Dubia roaches food that contain the nutrients you want your animals to eat. Dubia roaches can survive a long time without food. They also have specialized bacteria in their gut that allow them to live on items with almost no nutritional value like paper and cotton. Since you're maintaining feeders, you can focus on the end consumer's nutritional needs rather than the roach's. The end consumer is of course your animal. This goes back to the idea of gut loading, which we highly recommend.

The bottom line is that while Dubia roaches benefit from a healthy diet, they don't need much. They are scavengers with the most basic of needs. And this is great news for the animals that eat them. Feed your Dubia healthy foods with the nutrients you want your animals to consume, and they will be superior feeders for your animals.

Examples

Some common, widely available foods that are good for the roaches themselves and probably also for the animals that eat them are oats, wheat, bran, whole grain breads, cereal grains, apples, oranges, banana, grapefruit, carrots, sweet potato, and broccoli stalks.

Be cautious with protein

We don't recommend loading Dubia roaches with high protein foods. They're already a high protein insect, and they evolved to deal with scarcity by storing uric acid when protein is plentiful for times when it is not. Uric acid is an anti-oxidant and a natural byproduct of protein digestion, but it's also a toxin at high levels.

Instead of providing more protein for your animals, overfeeding protein to Dubia roaches may create a situation where the animals that eat them have to remove more uric acid than they otherwise would without any real benefit. While probably no big deal for most captive herps, protein overload has the potential to be bad news for those with existing health issues – particularly kidney problems – or that are otherwise on the edge health-wise.

Housing

Keep your Dubia roaches in containers that are (1) unaffected by moisture, (2) provide easy access, (3) are slick-sided, and (4) opaque. Plastic storage containers work well for this purpose but many objects like aquariums, jars, Tupperware, buckets, and more will also work. Three things to consider when choosing housing for your feeders are escape, air circulation, and heat retention.

Nutritional Note: We notice a lot of things in large Dubia roach colonies that are not apparent in small ones. One of them is the importance of shelter, darkness, and community. Dubia roaches that lack these are less healthy than those that have them. To maintain peak health, make sure your roaches have a dark place to hide and access to regular physical contact with other roaches. Interestingly, there is such a thing as "roach psychology", and Dubia are particularly social roaches. They seek the company of other roaches whenever possible, and they prefer not to be alone.

Size

In addition to preferring company, Dubia roaches favor small spaces. They will survive in overly large enclosures, but they do better in tight quarters surrounded on all sides by other roaches. Keep this in mind when choosing a container. A group of 50 Dubia will do better in a shoebox-size enclosure than a 40-gallon tub, for example. Since these are feeders, there's no need to plan ahead for a larger colony. Find a good size enclosure for the roaches you have now and if you end up with a larger colony in the future, you can upgrade at that time.

Harborage

To accommodate their need for darkness and physical contact, place some kind of harborage in their enclosure. This will ideally be something they can crawl on and hide inside. It could be paper egg cartons, crumpled newspaper, cardboard tubes from a used paper towel roll, and more. You can use anything that provides small, dark spaces where roaches can gather together.

Lids

Lids are often unnecessary because Dubia roaches cannot climb very smooth surfaces. However, you may want to consider that lids also keep unwanted things out. Also remember that Dubia roaches can climb lightly scuffed surfaces. With any new enclosure, make sure the sides are smooth enough to prevent escape before deciding to go lidless. Keep in mind that small nymphs are smaller and lighter and can climb smoother surfaces than larger roaches.

If you use a lid, make sure your colony has enough air. You can cut ventilation holes and secure them with window screen and hot glue or tape. Dubia roaches can chew through fiberglass screen, so if they can reach it, be sure to use metal.

If you have a container with walls the roaches can climb and you don't have a lid, you can prevent escape by spreading a two to three-inch wide band of petroleum jelly all the way around the walls inside the bin.

You can also apply a strip of clear, slick packing tape. Both work equally well, but packing tape is less messy and would be our recommendation.

Substrate

Don't use any substrate in your enclosure. Bacteria and Dubia roaches thrive in the same conditions, and the two are not always a healthy mix. Reduce the potential for bacterial overgrowth by keeping the enclosure clean and dry. There is no advantage to letting a little frass (roach poop and exoskeletons) accumulate. However, in most situations there is no harm either.

The exception to the no substrate rule is with Minis that may still be in their poop-eating stage. Young Dubia roach nymphs eat feces for the nitrogen and bacteria they need to colonize their intestines. If you buy Mini Dubia roaches from us you will notice that they come with a small amount of frass. This is from their old enclosure and we recommend placing it with them in their new enclosure. This way the Minis still eating poop have access to it while those that aren't will ignore it. If you don't want to include the frass you don't have to. The roaches will survive without it, and because these are feeders, you don't have to plan for their long-term health.

Humidity

Generally, Dubia roach feeders don't have special humidity requirements. If you live in a dry climate or the air in your home is dry due to central air or heating, your roaches may appreciate daily misting. However, it probably won't improve their health or increase longevity. Humidity helps with reproduction and molting, so if your air is dry and you notice molting problems, consider increasing humidity. If you spray, allow their enclosure to dry between mistings. Dubia roaches are not a super high humidity insect. 40% to 60% is about all they need.

Light

Provide at least 8 and preferably 10 to 12 hours of darkness every 24 hours. This can be achieved by storing their enclosure in a dark room or by providing continuous access to an area of darkness within the enclosure. Dubia roaches need darkness and they become stressed if they don't get enough.

While too much light causes stress, Dubia roaches can't get too much darkness. There is no harm in keeping them in a place without any light. They don't like light and they don't need it. Though they have the ability to see, most of what they do is guided by smell and feel.

Size Dependent Care

A Dubia roach care sheet is not complete without information about the different needs of various sized and age roaches. We think it's useful to pay attention to the various differences between Dubia roach sizes from a nutritional perspective.

Temperature

Large roaches can withstand environmental extremes much better than their smaller cohorts. Nymph

Minis, for example, are particularly affected by temperatures outside the range recommended for growth above, which is 70° F to 85° F. They are also more easily affected by food and water shortages.

The larger Dubia roaches get, the better they can handle environmental extremes.

Young Dubia are growing fast, so they use up energy quickly. They also have fewer reserves due to their small size, and because they've had less time to build them compared to older roaches. Basically, the larger/older the roach the better it handles adversity.

Colony stress

Small nymphs are also vulnerable to predation within a colony. Stressed adults without enough protein, sporadic food availability, or poor food quality, will eat young nymphs. Adults also tend to take the young nymphs out when colonies are overcrowded and conditions are otherwise substandard. Adult males will eat the young when reproductive pressures are high, as when the female to male ratio is low.

Under normal circumstances, Dubia are social roaches and don't tend to harm each other. Newborn nymphs can generally be kept with larger nymphs and adults without issue if you follow the steps below.

Keep temperatures within the range for "growth" listed above

Maintain adequate food and water

Provide adequate safe harbor and at least 10 hours of darkness in a 24 hour period

Reduce the ratio of adult males to adult females to 1:3 or lower

Newborn nymphs get a fair amount of protective care from adult females. Captive insects probably don't need the protection to survive in well-stocked enclosures, but it may benefit their well-being. This in turn may affect their health, which influences how long they survive, how much they eat, how fast they grow, and ultimately how nutritious they are as feeders. Dubia roaches need physical contact and their growth can be stunted to the degree they don't get it.

Frass

As previously mentioned, newborn Dubia roaches eat frass. This generally applies to roaches ¼-inch or smaller. If you have roaches this size, consider leaving at least some frass in the enclosure. On the other hand, neither frass nor its absence seems to have an affect on adults.

Conclusions

What's important to remember in reading through this information is that caring for Dubia roaches is not an all or nothing proposition. There are some things they can't live without, but once those basic needs are met any marginal step you can take to support their physiological (and in some cases psychological) needs will help maintain and even boost their health. And, healthy feeders are nutritious feeders.

The only way to assign values like "right" and "wrong" to Dubia roach care is to first know their purpose. If you're keeping roaches as feeders to be fed off in a week, there is nothing wrong with storing them in a warm spot with a little food and water and leaving it at that. If you want to gutload them or grow them larger, you will need to do more.

Our bottom line advice is to decide what you want from your roaches, then act accordingly. We hope to provide useful information as you work to accomplish those goals.