

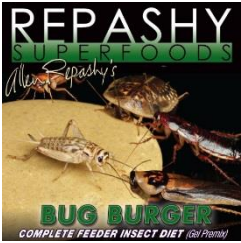
Live feeders

Part of responsible pet ownership is providing a healthy, species appropriate diet. For many animals, mostly reptiles, that is going to include feeding live foods. And yes, they can be gross for some people, but they meet a need that your pet has like nothing else can.



Why feed live, when there are dried and canned insects available? Many of our pets are ambush predators, and have to see their food moving by them. Dried and dead insects often will not trigger their appetite, and are not as nutritious as live ones.

Because no food is nutritionally complete, to ensure that your pet gets the best nutrition it's best to both gut load and dust your insects with vitamin/calcium powders. Gut loading just means ensuring that your insect is eating and filled with something nutritious, so that your pet will receive it, too. Gut loading can be done with a variety of foods, from potato slices and zucchini to apples and fresh greens - potatoes and zucchini tend to last the longest without spoiling, but always be sure to clean out old veggies and replace with fresh. Flukers makes a cricket diet that is packed with vitamins and minerals, and the new Repashy's Bug Burger, a powder that you make into a unique, highly nutritious gel for all your insect's needs. These are an incredibly convenient way to deliver high quality nutrition to your feeder insects and, therefore, to your pet.



In nature, reptiles and amphibians are exposed to a wide variety of food items, often much more varied and ultimately more nutritious than those diets fed to captive herps. We often need to give supplements to ensure great health. There is a great deal of discussion in herpetology about vitamins and mineral supplements. How much to give? With D3 or without? How much is toxic? Find the right amount that your reptile needs by consulting your reptile veterinarian.

Vitamins: A broad vitamin supplement focusing on much-needed vitamin A, meant to help fill in nutritional gaps in a favorite staple food. Well balanced, but most do not contain an adequate amount of calcium, so extra supplementation is needed.

Calcium with phosphorus: This is used for reptiles that do not eat insects, to give them that necessary nutrient. For omnivores and carnivores, crickets provide adequate phosphorus in their diet. Too much phosphorus will, over time, prevent calcium from being metabolized.

Calcium with vitamin D3: Phosphorus-free calcium supplement, the vitamin D3 helps the body absorb the calcium. Given to most reptiles to ensure adequate levels, but, since vitamin D3 can be overdosed, it is often alternated with the calcium without D3.

Calcium without vitamin D3: Most frequently given to nocturnal or diurnal reptiles, as they get enough vitamin D3 for their limited needs from the intense UVB bulbs. It is also given to animals kept outside, as they get enough vitamin D3 from their exposure to the sun.

We recommend giving your supplements on the following schedule:

Day 1: vitamin powder

Day 2: calcium powder

Day 3: Nothing

Repeat.

When feeding insects, use the "shake & bake" method: place your insects in a small bag, add a pinch of that day's supplement, close securely and then shake. Do this right before giving the insects; if you do it too long before hand, then powder will be cleaned off and not taken by your pet. Supplements can also be mixed into that day's veggies so your herp gets some in every bite; Simply putting it on top can cause some problems if your reptile avoids that piece of food. Over time, a lack of vitamins and minerals can cause a lot of health problems for your pet, including metabolic bone disease, neurological and physical problems and even death.

And because different insects have different nutritional qualities, it's best to provide your pet with a diet with a lot of variety. Do this when they are younger so they learn to accept anything you offer.

All about the insects

*Please note, nutritional values are approximate and do not reflect gut loading or supplement dusting and are meant as a guide to the basics of your pet's diet. Please consult a reptile veterinarian for any questions and concerns.*¹

Understanding calcium and phosphorous. The Ca:P ratio is simply the ratio of Calcium compared to Phosphorus and so a Ca:P ratio of 1 (one or 1:1) would mean that Calcium & Phosphorus are found in equal quantities, a Ca:P ratio of 0.5 (half or 0.5:1) means that there is half the amount of Calcium than there is Phosphorus. An ideal Ca:P ratio would be around 2 (two or 2:1) as this will allow calcium to be easily absorbed.

Crickets: One of the most common insects used as a live food, as they are available in various sizes and are usually readily taken by reptile. They are fine to feed as long as they are part of a varied diet and a few things are kept in mind:

When feeding crickets, it's important to use a calcium supplement without phosphorous, as they are naturally high in this element.

Do not feed too many crickets at one time, giving only as many as they can eat in a couple of minutes. Too many uneaten crickets can begin to stress our pet out or even begin to bite them.

Care: Since crickets can be rather dirty and difficult to keep, only get enough crickets to last one week. Place corrugated cardboard or egg carton crating to give them a large surface area; they'll attack each other if crowded. Use a Cricket Keeper to house and feed your crickets, and layer some bedding in the bottom to absorb moisture. The dark tubes in the Cricket Keeper are really handy, as the crickets hide in them; simply shake out a few to feed (or into a bag for shake and bake.)

Item	Protein %	Fat %	Ca:P ratio %
Cricket	64.9	13.8	1:9



Mealworms: larval form of the darkling beetle (*Tenebrio molitor*). They make a great addition to your reptile's diet, but there is concern that over-feeding mealworms can lead to impaction due to their hard exoskeleton.

Care: Keep them in a container in a cool, dry place with some bedding and food. If they pupate, the beetles, while edible, have very hard exoskeletons that can be difficult to digest and cause impaction.

Item	Protein %	Fat %	Ca:P ratio %
Mealworm	52.7	32.8	1:7



Superworms: These larger insects are the larvae of a darkling beetle (*Zophobas morio*), and while they have a thinner shell than mealworms and are less of a concern, be sure the size is appropriate and, as always, make them part of a varied diet.

Care: Keep them in a container in a cool, dry place with some bedding and food. If they pupate, the beetles, while edible, have very hard exoskeletons that can be difficult to digest and cause impaction.

Item	Protein %	Fat %	Ca:P ratio %
Superworms	45.3	55.1	1:3.5



Wax worms: These grubs are larvae of the wax moth, (*Galleria mellonella*), and are soft bodied, juicy, plump insects that animals just love. They are higher in fat than the other insects (we call them the potato chips of the insect world), so they should be fed sparingly and as treats; they also work for pets that have not been eating for a while or need some extra fat in their diet.

Care: Wax worms can be stored at room temperature with their substrate and will last for about one week. Keep them cooler, around 60° or in the butter tray in the fridge, to make them last up to 8 weeks. If they do pupate, the moths are also edible, and can be fun for your pet to catch (although it might be a little difficult for slower animals).

Item	Protein %	Fat %	Ca:P ratio %
Waxworms	42.4	46.4	1:6



Dubias: To start off, yes, these are a species of cockroach (*Blaptica dubia*), but they are quite different than the pest German cockroach: they are bred in captivity, so they are clean and do not carry disease, and they are originally tropical, so they would have a very difficult time surviving if they did manage to escape their enclosure - which is rather hard for them.

We love them, as they are quiet (much more so than crickets), with less smell compared to crickets, and are not terrible mobile and do not escape as easily as crickets. They also have much softer exoskeletons, so there is less risk of impaction, and are much more nutritious than crickets.



Care: Keep in a cool dry place, like in a cabinet, with some bedding and crawl space. They are slow growers, and can be kept for longer periods than crickets, so be sure to pay them attention, and provide some moisture and food. For more specifics, check out our [Dubious about Dubias care sheet](#).

Night crawlers and red wigglers: The night crawlers are larger than the red wigglers (the latter is often used for composting) Both are offered to a wide variety of animals, such as turtles, frogs, newts, small snakes, fish, and toads.

Care: They're easy to keep, as you only have to refrigerate them in their container, in their soil. Do not let them become saturates or too dry and they can last for a couple of weeks.

Item	Protein %	Fat %	Ca:P ratio %
Nightcrawlers	60.7	4.4	1.6:1
Red Wigglers	10.5	2	

Hornworms: Normally considered a pest in the garden where they eat tomato plants, these caterpillars are raised on a non-toxic food substitute, so they're safe for our pets (this is why you never feed caterpillars found in your garden, as they retain the toxic chemicals from your plants.) They are very soft bodied, so they pose no impaction risk, and they're large enough that one can substitute for several other insects as an occasional treat.

Care: Keeping them alive for any period of time can be difficult, so buy them just before you plan to feed.

Item	Protein %	Fat %	Ca:P ratio %
Hornworms	61	21.7	1:3



Calciworms: Also called phoenix worms, these special worms are actually the larvae of black soldier fly. They are fed a unique high calcium diet, so when feeding these it is not necessary to supplement calcium. They are soft bodied so they pose little hazard of causing impaction.

Care: Keep calciworms in their container with their substrate in the fridge. This slows down their bodies and help them last longer./

Item	Protein %	Fat %	Ca:P ratio %
Calciworms	48.4	26.8	2.6:1



Fruit flies: These fruit flies, *Drosophila hydei*, have a genetic mutation prevents them from flying, making them a great feeder insect for smaller and baby animals. Feeding only a small portion of the colony will let the others begin to reproduce, giving you more generations to feed. Do not let your feeder colony get infested with wild fruit flies, as the genetic mutation is recessive and will be lost, leaving you with more flying insects. The larvae can also be fed, but that cuts into future generations.

Care: Keep fruit flies in their container with their food and climbing surface. Rotate it frequently to prevent flies from getting smothered in their food. Availability is limited, please but please call as we're happy to special order them for you..

Item	Protein %	Fat %	Ca:P ratio %
Fruit fly	71	12.6	1:10.5



Mice, rats, and feeder goldfish: These are often used for snakes and reptiles, but are not recommended by many herpetologist and hobbyists, and neither do we. Most animals can be taught to accept dead, and it is considered to be a lot safer for the pet and more humane. And when you consider that many feeder animals are kept in very crowded and dirty conditions, it makes sense to not feed these live feeders.

Some feeding tips:

Use the distance between your reptile's eyes to judge the size of insect to get. It's healthier and easier to digest if they eat more smaller prey items instead of a few large insects.

Always remove any uneaten insects in a couple of hours.

Insects are great for more than just bearded dragons and leopard geckos. Many mammals are actually insectivores, and make a great treat for hedgehogs, mice, gerbils, and hamsters - they're especially good for hamsters with babies, as the extra protein and vitamins help them raise a strong litter. Many fish love insects as part of a varied diet; livebearers love fruit flies and larger fish such as cichlids will take crickets and wax worms. Some fish, like the butterfly fish, halfbeaks, and many air-breathers like gourami and bettas evolved to eat insects at the top of the water.



Save time and money on your insects with our Bug Club! This prepay card is designed to save you both time AND money on your crickets, mealworms, super worms, and waxworms (not valid for other insects.)

As always, stop by and talk with our trained associates about your pet's needs and how to properly feed them, and head over and check out our [care sheets](#) for your particular pet.

1. <http://moonvalleyreptiles.com/files/Feeder-Nutrition-Common-Reptile-Feeders-v1.0.pdf>