

## LEOPARD GECKO HUSBANDRY

It's important that you provide leopard gecko with optimal environment:

Leopard geckos evolved in the arid, mountainous deserts of Asia and the Middle East. With good care leopard geckos can live 8-10 years or more and make excellent pets. It is typically recommended to house them singly, though sometimes it is possible to keep breeding pairs together but only if they are the same type of gecko.

-Temperature: Temperature is very important for keeping your gecko healthy with a gradient of temperature from cool to warm. Daytime temperature range with a cool side at 78-80F (25.6-26.7C), a warm side at 85-90 (29.4-32.2C) and a very warm, focal basking area of 90-94F (32.2-34.5C). A nighttime temperature range of 68-90F (21-32C) is recommended. Heat lamps or ceramic heat emitters are safe options for providing tank heating. Under tank heaters or hot rocks are not recommended as they can lead to thermal burns and do not heat the air as effectively. 30-40% humidity is recommended in the main enclosure; however, the moist hide should have a higher humidity of 70-80%. Although they are from an arid region, having sufficient humidity is important to respiratory and skin issues and not too much humidity is important to prevent secondary infections from moisture loving microbes.

-Lighting: In addition to tank lighting that supplies UVA and visible light exposure, leopard geckos require UVB exposure to maintain proper health, even though they are crepuscular (most active at dawn and dusk). UVB lighting of 2-5% UVB for 10-12 hours a day is recommended. The cage should not be lit at night. Just as with temperature, their enclosure should have a gradient of UVB exposure with no UVB at the coolest end and highest at the basking spot. To avoid over supplementing, at least ¼ of the tank should not be directly illuminated with UVB light. You can prevent over supplementation of UVB by placing the UVB bulb at one end of the enclosure (typically the warm end) and fixed at the high end of the recommended distance to the surface for that type of bulb. Distance from the UVB bulb is vital as it dictates how much UVB exposure an animal will receive in the basking site. Distance depends upon the type and UVB output of the bulb. The most common types of UVB bulbs used with leopard geckos are the compact fluorescent (CFL), linear fluorescent or mercury vapor bulbs. For example, a CFL or linear fluorescent 10.0 bulb should be placed no more than 16-18" from the basking site while a 5.0 bulb should be placed 12" or less. A mercury vapor bulb can be used in a larger enclosure due to its greater depth of UVB penetration, up to 3 feet. The mercury vapor bulb's wattage dictates the heat output of these dual use bulbs it does not change the UV penetration. There should be no glass or acrylic between the bulb and the surface as these will block UV light. Note that metal screening between the bulb and the enclosure will cut UVB output of the bulb significantly, sometimes as much as in half. Conversely, UVB light reflectors can improve UVB penetration by bouncing and focusing the UV light produced by the bulb. All UVB bulbs lose effectiveness over time, even if the light still appears to be working, it may no longer be producing UVB. It's recommended that you change the bulbs regularly, compact fluorescent bulbs at least every 6 months, linear fluorescent bulbs and mercury vapor bulbs every 12 months. Some bulbs may last longer but the only way to know for sure if they are still effective is to measure their UV output with a meter that measures UV Index or total UVB.

-Diet: Leopard geckos are insectivorous and should be fed a variety of prey insects, though can also be fed an occasional pinkie mouse. Insects should be gut loaded for at least 24 hours before being fed using a nutritious diet that contains calcium and vitamins A and D3 and should be dusted with calcium powder before feeding. Nutritional insects include black soldier fly larvae (soldier worm larvae), Dubia and cockroaches and the occasional wax worm, mealworm, superworm or silkworms (limit them due to their high fat content). They should also be provided a shallow dish of water for drinking and soaking. The water should be changed, and the dish cleaned at least once daily or, more frequently, if soiled.

Crickets are so-so in terms of nutrition so it's important to vary the type of insects you feed to your leopard gecko. To boost the nutritional value of the feeder insects it is recommend to "gut load" them for at least 24-48 hours prior to feeding them out. That means to feed the insects a nutritious food so that the leopard gecko gets the benefit of that nutrition. Some options for gut loading are:

Mazuri Better Bug Gut Loading Diet

Mazuri Hi Calcium Gut Loading Diet

Repashy SuperLoad Insect Gutload Formula

-Calcium and vitamin supplementation: Calcium and vitamin supplementation is best done in concert with appropriate UVB lighting, as reptiles needs UVB in order to make the active form of Vitamin D needed for proper calcium metabolism.

Insects should be dusted with calcium (only) powder just before feeding up to 3 times per week and should also be gut-loaded (the exception is crickets which should always be calcium dusted before every feed). To ensure proper health, substitute a reptile multivitamin powder that contains calcium, vitamin D3 and vitamin A instead of the calcium only powder for one feed per week in juveniles and every other week in adults. Do not use calcium with vitamin D3 for daily dusting as over supplementation of vitamin D3 can lead to toxicity. Use a calcium only powder instead. It is better if the reptiles make most of their own vitamin D3 from proper UVB exposure, so make sure to provide proper UVB lighting with bulbs that are in date and at appropriate distance from the basking site.

-Environment. It is recommended that the enclosure be at least 10-20 gallons in size. Care should be taken as to the enclosure substrate as they may potentially ingest loose substrates like sand or crushed walnut shells. Paper towels, newspaper, slate, tile or reptile carpeting are safe alternatives. Make sure to clean the substrate at least every other day or more frequently as it becomes soiled. You should include cage furniture in the enclosure, such as rocks for them to climb, but especially a moist hide box (lined with moistened vermiculite, peat moss or paper towels) since leopard geckos are a shy, crepuscular species, most active at dawn and dusk.