



Milwood Animal Clinic

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Bearded Dragon Care

Supplies:

- 20 Gallon Long Aquarium (50 gallon for adults)
- Metal screen cage top (plastic will melt)
- Light fixture(s) for high-heat light bulbs
- UVB Mercury Vapor Bulb
- Reptile under-tank heating pad
- Automatic timers for lighting and heating elements
- Glass aquarium thermometers (2 to 3)
- Hygrometer to measure humidity
- Reptile Carpet, ceramic tile, or paper towel for cage bottom
- Hiding logs or rocks
- Sphagnum moss
- Branches and/or rocks to climb on
- Insect Pen
- High Calcium Gut Loading Diet for insects
- Reptile Calcium powder
- Reptile Vitamin powder
- Large plastic tub for bathing
- Spray bottle for misting
- Insects and veggies for feeding (more on this below)



Captive Housing:

Bearded Dragons are a medium sized lizard and need a good amount of space to live happily. We recommend a 20 gallon tank for juveniles and a 50 gallon or larger tank for adults. Beardies can be housed in small groups but the individuals must be close in size to prevent larger dragons injuring and stressing smaller ones. Males tend to be territorial and it is best not to keep more than one male in a single cage. Overcrowding can lead to aggression and stress, compounded when the subordinate animal has no place to run off to hide.

An enclosure should be large enough to provide a wide temperature gradient both horizontally and vertically. A top to the enclosure is required to prevent the occupant from escaping. Make sure the tank top is made of metal mesh with a metal frame and is large enough and sturdy enough to hold multiple light fixtures. Glass or plastic tops should not be used because they block UV light from passing through. There will be more discussion on UV light in the Lighting section of this article. Tanks must be well-ventilated, yet able to retain heat. Vivariums with screen sides provide excellent ventilation but are more difficult to maintain high temperatures in.

In their native environment, bearded dragons live in sandy areas. Unfortunately, while popular, sand is not a suitable substrate in captivity since it can cause intestinal impaction when ingested. The most suitable substrates for Bearded Dragons are reptile carpeting (trim loose threads as

necessary), butcher paper, unprinted newsprint, paper towels or ceramic tiles. Paper liners are the easiest to clean - just replace soiled pieces as needed. Reptile carpeting should be laundered at least weekly (it's a good idea to have 2 or more pieces of the carpet to make it easier to switch out) and ceramic tile can be removed and thoroughly cleaned as needed. Cage "furniture" can include branches for climbing and basking, and rocky, ceramic, or wooden caves, reptile hammocks, and artificial plants. **Do NOT use** Calci-Sand, ground walnut, corn cob bedding, alfalfa pellets, kitty litter, or wood shavings as a cage substrate.

Bearded Dragons need areas for basking as well as hiding. Provide at least one hiding area on the cooler side with branches and logs for climbing and basking on the warm side. Ideally, the tank should be big enough to have a hiding place at both ends of the temperature gradient, plus a basking area closer to the heat source. Often a hide rock or log can double as a basking spot.

The location of the cage is also very important. It should be located in an area with minimal fluctuations in temperature and humidity. Some poor location choices include: near a window where sunlight can overheat the tank, near a door where drafts can cause an unhealthy drop in temperature, in a bathroom where humidity levels can rise to unhealthy levels.

Temperature:

Basking: 100°F

Cool spot: 75°F

Nighttime: 70-75°F

The importance of proper temperature cannot be overstated. Because lizards are exothermic (cold-blooded), they rely on their environment to maintain their internal body temperatures. Metabolism, digestion, and immune function all rely heavily on a lizard's body temperature. Ideal body temperature varies from hour to hour, depending on what activity the lizard is engaging in. This is why providing a temperature gradient or range is so important. The lizard should be able to move freely between temperatures to self-regulate.

Setting up a proper temperature gradient takes a little trial and error. Establish a warm area on one side of the tank where the basking light will be placed. The basking area is the highest point your dragon can reach (i.e. on a branch or rock) that is directly beneath the UVB bulb and is the warmest area in the tank - this area should be around 100°F. Mercury vapor UVB bulbs make the best basking lights because they provide both heat and UVB spectrum of light (more on why in the Lighting section). The opposite side of the tank should be the "cool area" (around 75°F) where the heat will be less intense. Usually one or two 75 or 100 watt incandescent bulbs (regular lamp bulbs but not compact fluorescent) will provide enough heat to maintain the temperature on the cool side. Because 75 and 100 watt incandescent bulbs have been phased out in the United States, alternative options must be considered. These could include ceramic heaters or reptile. Nighttime temperatures can drop to the low to mid 70s on the cool side.

Under tank heating pads are specially made for reptile habitats, do not use a drug store heating pad. Do not use heat rocks in the tank as they do not provide adequate heat for air temperature and are a common cause of burns in reptiles. Reptile heating pads usually come with little stick-on "feet" to put on the bottom of your aquarium and prevent the weight of the aquarium from putting pressure on the electric cord. Be sure to use these or something similar to prevent damage to your heating pad's cord, which could pose a fire hazard. The heating pad also has a sticky side that can be used to stick it to the bottom of the aquarium. We don't recommend sticking the pad to the bottom of the tank for 2 reasons: it will be easier to clean the tank that way and it will prevent hot spots from forming on the bottom of the aquarium.

Have at least three thermometers in the cage to check your temperatures: one on the cool side, one on the warm side, and one directly in the basking area. Place them where your pet spends its time, not just where it is convenient for you. Check your temperatures often - at least once during each season - because ambient temperatures change with the seasons and this, in turn, will affect the temperatures within your bearded's cage.

Humidity:

Humidity in the habitat should be between 40 and 50%. An inexpensive pet store hygrometer can be used to monitor humidity. One of the hide boxes should provide a humid retreat. This can be achieved by placing damp sphagnum moss under the box and spraying it daily with water. Change the moss weekly to prevent bacteria or fungal growth. Your bearded will enjoy a shower now and then: a light misting with water will also help keep the skin humidified to make it easier to shed. The tank, however, should never be damp.

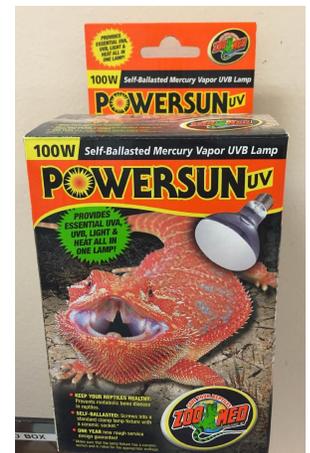
Lighting

Ultraviolet light is important for most lizards. The UVB light that comes from the sun allows lizards (and many other animals) to produce Vitamin D in their skin. Vitamin D then travels to the lizard's intestinal tract and makes it possible to absorb calcium from the diet. Without Vitamin D, no calcium can be absorbed. Unfiltered sunlight (i.e. not through glass) is the best source of ultraviolet light and lizards should be exposed to sun whenever it is safely possible. Be careful when taking your lizard outdoors to prevent overheating and escape. Reptiles can become overheated very quickly if left in direct sunlight. Never leave your pet in an aquarium in the sun. Your pet should never be allowed outdoors unsupervised at any time.

There are many UV (sometimes referred to as full spectrum light) bulbs on the market. Most claim that they duplicate the sun's light spectrum, however there is no bulb that can achieve the intensity of ultraviolet light emitted by the sun. Some bulbs provide so little UV light that they are completely useless, and some are so powerful that can burn the reptile. As mentioned in the heating section, good quality mercury vapor UVB bulbs make the best basking lights because they provide both heat and UVB spectrum of light. Lizards instinctively bask in areas that are both bright and hot. Fluorescent type UV bulbs provide brightness without the heat so often the lizard may bask in the wrong area of the cage unless a heating element is paired with the UV bulb. If you are using a UV bulb that does not produce heat it should be placed as close as possible to your basking bulb and on the warm side of the cage.

There are two brands of bulbs we currently recommend for our basking reptile patients: the MegaRay, available at reptileuv.com, and Zoo Med's Power Sun, available at most pet stores. Both are mercury vapor bulbs and produce heat as well as UVB light.

Your UV lights must be changed at least every 6 months in order to provide adequate levels of UVB spectrum lighting. Humans can't see the UVB wavelength so there is no way of knowing when that spectrum of the light has died off. We can test your bulb's UVB output for you to help you decide if it is time to replace the bulb. We recommend testing your bulb when you first purchase it to make sure the bulb is good and then every 2-3 months thereafter. Many bulbs are found to be defective right out of the box, thus the importance of testing when you first purchase.



The lighting cycle should be 12 hours of light and 12 hours of darkness. Using an automatic timer to turn your lights off and on is very helpful in regulating your light cycles. Just like humans, reptiles need complete darkness at night. If you need to provide supplemental heat at night, use an under-tank heating pad, a ceramic heating element, or a nocturnal reptile bulb. Never use a white light of any sort at night, for lighting or for heat. This will stress your animal, eventually affecting its ability to thrive through the resultant lack of sleep, loss of appetite, and other stress-related symptoms.

Feeding:

Feeding items and amounts depend on the age and size of your Bearded Dragon. It is best not to adopt Bearded Dragons younger than 8 weeks of age because it is difficult to find insects that are small enough to safely feed such small beardies.

Juveniles 8 to 16 weeks of age:

You must feed very small prey to baby bearded dragons. While it is generally safe to feed most lizards prey that are the same length as the distance between the lizard's eyes (or the width of its mouth), this is not advisable with baby bearded dragons (under 4 months of age). When fed prey that is too large for them or too many at one time, fatal intestinal impaction can result.

Feed twice daily. Start with feeding pinhead crickets, fruit flies, dwarf isopods, and tiny, freshly molted mealworms. Most pet stores don't sell tiny insects, so you may have to order them online or breed them yourself. The amount of insects to feed at one time varies with the size of the insect but if you are feeding insects that are shorter than the distance between the lizard's eyes, you can feed approximately 4-6 insects at a time. If you are feeding very tiny insects, you might be able feed upwards of 10 per feeding. The amount to feed at one time is based on stomach capacity. To estimate the stomach capacity of a lizard, look at the size of its head. The stomach capacity of a lizard is approximately the size of its cranium (or about 1/2 the size of its head

Bearded dragons are omnivores, with plant foods comprising up to 90% of their adult diet. Juveniles are much more carnivorous but they should still be offered veggies every day right from the start. Don't be discouraged if your baby beardie doesn't eat the veggies at first, keep offering them daily. Be sure to cut the veggies down to the same size as the insects you are feeding.

Juveniles 4 to 6 months of age:

Feed daily. You can start to feed larger crickets and insects, using the distance between the lizard's eyes as a guide for the size of insect to feed. Feed 5 to 8 insects at a time. Continue to feed veggies, slowly increasing the size of the cut as your dragon grows. Your dragon should naturally start eating more veggies.

Juveniles 6 months to Adults

Slowly wean down to every other day feedings as your beardie becomes an adult (18 to 24 months of age). Continue to offer veggies daily. Continue to increase the size of the food source as your dragon grows.

Types of food to feed:

Since these lizards consume a wide variety of prey in the wild, a variety of protein sources must be offered in captivity. Commercially available insects include crickets, dubia roaches,

mealworms, superworms, hornworms, silkworms, bean beetles, fruit flies, springtails, wood lice (aka sow bugs, pill bugs or roly-polies), and wax worms. You can also catch your own insects to feed to your lizard - just make sure they are not from an area that has been treated with insecticides or herbicides and insects you are feeding is not poisonous. Examples of acceptable wild caught prey to feed include: moths, cicadas, flies, crickets, small grasshoppers, spiders (non-venomous), cockroaches, wood lice (aka sow bugs, pill bugs or roly-polies), earthworms, slugs, and aphids. It is generally better to feed more adult insects than larval forms overall.

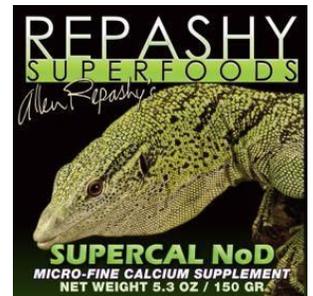
DO NOT FEED fireflies, venomous spiders, large (lubber) grasshoppers, stinging insects, monarch and other toxic caterpillars, fire ants, stink bugs, or scorpions. Also avoid feeding fruits as they tend to cause obesity in bearded dragons.

Gut-Loading:

Gut loading refers to feeding your insects a high-calcium, high-vitamin diet 12 to 24 hours prior to feeding them to your pet. Most insects are nutritionally deficient with the exception of their stomach contents so gut-loading improves their nutritional content. We recommend and sell Mazuri High Calcium Gut Loading Diet for crickets, mealworms, superworms, Dubia roaches. In addition to providing essential vitamins, this diet is formulated to contain a high level of calcium for crickets and other feeder insects which are intended to be used in the diets of other animals. It helps balance the calcium to phosphorus ratio of the crickets and other feeder insects when they are consumed by other animals. Provide water with a damp paper towel or cotton ball. Do not use cricket cubes or vegetables as a water source because the insects will preferentially eat these items and will not be as nutritious when fed to your pet.

Supplements:

Sprinkle or dust prey with a calcium supplement just before each feeding. We recommend and carry Repashy SuperCal. An easy way to coat your insects with the powder is to use a small tupperware container with a layer of the calcium powder on the bottom. Drop your insect in the container, cover, and shake gently until the insect is coated with powder.



We recommend Repashy SuperVit for multi-vitamin supplementation. Insects should be dusted with the multi-vitamin supplement once or twice monthly as long as the Mazuri Gut Loading Diet is being fed to the insects.

Water:

Fresh water should be provided in a bowl inside the cage. The water should be changed and the bowl washed daily. Bearded Dragons often enjoy a daily water bath. The baths encourage drinking and beardies have a tendency to not drink enough. A clean dish tub or plastic storage container makes a good bathtub: add enough lukewarm (not hot!) water to just cover your lizard's tail. This will allow the dragon to drink the water and paddle around without risk of drowning. Allow your dragon to soak for 5 to 10 minutes. Soaking may also stimulate a bowel movement which helps prevent constipation, another common problem with beardies. Always supervise your beardie when it is taking a bath.

Handling:

Gently scoop up your dragon with your hand under its belly. Dragons tend to be very trusting and will not necessarily hold on as will other lizards, so always take care to support your dragon. They do not like being firmly held; let them rest in your palm with your fingers gently curled

over the back. Dragons are inquisitive animals, so create a controlled space in which it may do some exploring.

All new reptiles should be tested for internal parasites and checked carefully visually for external parasites, so find a reptile vet before, or right after, you get your bearded dragon.

Nutritious Dark Leafy Greens

These vegetables are excellent food sources for many small animals including herbivorous and omnivorous reptiles, birds, rabbits, guinea pigs, and other herbivorous mammals.

Feed the following greens in abundance:

Arugula
Basil
Cilantro
Clover (no pesticides or herbicides)
Dill leaves
Endive*
Escarole
Mint
Peppermint leaves
Radicchio
Raspberry leaves
Red or Green Leaf Lettuce
Romaine lettuce (no iceberg or light colored leaf lettuce)*
Dandelion greens and flowers (no pesticides or herbicides)*
Watercress*
Wheat grass

The following greens should be fed less often and in smaller amounts:

Alfalfa, radish & clover sprouts^
Beet greens (tops)^*
Bok Choy†
Brussels sprouts^†
Carrot tops^*
Collard greens†^*
Kale†*
Mustard greens†^*
Parsley^*
Radish tops^
Swiss Chard^
Spinach †^*
Turnip Greens†^

* Contains high amounts of Vitamin A, which is good for skin health

^ Contains high amounts of oxalates & may cause health problems if fed often. Use sparingly.

† Contains high amounts of goitrogens & may cause health problems if fed often. Use sparingly.