

Introduction

So, you've decided to get a bearded Dragon, or perhaps add another to the pets you already own. Congratulations! Beardies make fabulous pets because of their gentle, personable nature. They are great for families with small children and anyone with allergies to other types of pets. If you haven't done so already, it's important that you research what you and your Beardie need before you bring him or her home. If you already have your Beardie, this care sheet should help answer any questions that might arise.

Background

Bearded dragons are native to the semi-aerial woodland, arid woodland, and rocky desert regions of central Australia. They are semi-arboreal, meaning that while they live on the ground, they prefer to live in areas with some trees. They like to climb and will do so for safety and to reach preferred basking spots in sunlight.

In captivity, Beardies do the best in an environment that mimics their native environment. If well cared for, your new Beardie should remain healthy, alert and active. Beardies are curious creatures and, while they lay their heads down to sleep, they should otherwise be watching you as you move about. When you handle your Beardie, he can be cuddly and affectionate, licking your hand or snuggling in under your arm. They can also be quick on their feet. They can jump away (even jumping from so great a height that they hurt themselves) or climb up to reach a "lookout" on your shoulder.

The first time you pick up your Beardie, make sure you look him over. You should not find any sores, burns, external parasites, or deformities. Look at the eyes, mouth and nose to ensure they are clean (no pus or crusty buildup). Your Beardie's eyes should be open and alert. You may see shedding, which is normal. Finally, some captive bred dragons will have bite marks on their feet or tail and could even be missing some toes or the end of his tail. Such bites will not cause your Beardie discomfort so long as they appear completely healed.

Habitat

A habitat with a larger floor surface area is preferable to a taller one. Juveniles up to about 10 inches long can be housed in a 20 gallon long glass tank while adults will need 40 to 55 gallons. The tanks walls should be smooth with nylon screen covered vents. Avoid wire mesh screening to prevent nostril abrasion. Consideration should be made for glass enclosures placed in cool areas unless the bottom and three sides are insulated to prevent heat loss.

Beardie's do not need a lot of furniture, but a branch, log, or tree of some sort, and hide area should be provided to increase their comfort and reduce stress levels. Substrate should be easily cleaned or replaceable. Avoid any material that could be ingested. Beardies are both curious and clumsy eaters and could easily ingest loose substrate while trying to eat something else. Eating something unintentionally can easily lead to impaction and death.

Heating

Beardies move about in their environment to maintain their correct body temperature. In the daytime, to achieve proper body metabolism and digestion, they need a basking area in the range 95°F to 102°F (a little warmer won't hurt). To this end, I heat lamp should be placed at one end of the tank. The other end should be cooler, in the 80°F to 85°F range. Heat rocks and pads are not recommended because they can injure your Beardie. High temperatures for babies can be warmer in the 105°F to 110°F range. Nighttime temperatures should be cooler (as low as 70°F to 75°F). Incandescent bulbs and mercury-vapor lamps are common sources for daytime basking areas. If nighttime heat is required at all, it should be a dark bulb so it doesn't interrupt the Dragon sleep cycle.

Lighting

Beardies require a day-night light cycle similar to what they would find in nature. Use a timer to provide 12 to 14 hours of daylight during the summer and 10 to 12 hours in the winter. Beardies also require ultraviolet light for proper calcium metabolism. Direct natural sunlight will work if it does not pass through glass or plastic (e.g. Acrylic), which will filter out the beneficial UVA/UVB. Full-spectrum fluorescent lights (like Reptisun 10) should be placed above the Beardie and changed every 6 to 8 months. There is anecdotal evidence that "curly" fluorescent lights can cause eye problems in Beardies, so please don't use. The closer your Beardie is to the florescent light, the better. You can place a piece of furniture (branch or log) so your Beardie is within 12 inches of the bulb at least some of the day. Mercury-vapor lights can also provide UV light (as well as heat). You will need to place the bulb over the tank, preferably on a lampstand instead of the screen, which can block as much as 50% of the available light.

Humidity

High humidity can be harmful to bearded dragons. Inside an enclosure, 30% to 40% is an absolute maximum.

Ventilation

Habitat ventilation is necessary, but should not be so great that it causes temperature control problems. Vents located low on a habitat's walls should not use wire mesh that can cause abrasions.

Hygiene

Some pathogens are transferred from Beardie to Beardie via their feces. Live feed (e.g. crickets) that are not themselves well fed can get hungry and bite a Beardie. For these reasons, feces and uneaten food should be removed daily. Habitats should be kept clean and disinfected regularly, especially while cleaning up feces. It is normal for a Beardie to "relieve itself" in its bathwater. It is important not to share contaminated bathwater between dragons.

Feeding

Juvenile bearded dragons (up to 10 to 12 months old) eat mostly insects while mature Beardies eat mostly chopped vegetables and fruit. Juveniles should be fed 2 to 3 times per day. They can be given veggies during the first feeding and crickets during the others. The distance between a Beardies eyes generally indicates the maximum size of cricket they can eat. If you offer oversized crickets, your Beardie may eat them, but he may not successfully digest one, leading to impaction, paralysis, and death.

Juvenile Beardies should be offered finely chopped, fresh vegetables (much smaller than the distance between their eyes) during their first feeding and the remains can be left in the tank for them to nibble on for the rest of the day. If necessary, they can be slightly misted to help keep them from drying out. Cut up dark leafy greens including collard, mustard, turnip, and dandelion greens, or escarole, endive or watercress. The greens can be fed alongside chopped yellow squash, fresh green beans, green or red peppers, carrots, or peas. Avoid anything with lettuce in its name as it has more water and less nutritional value. Also avoid large quantities of cabbage, brussels sprouts, cauliflower, broccoli, kale, bok choi, or radish because they contain goiterogenic substances (i.e., iodine binding agents). Avoid large quantities of spinach, beets, and celery stalks because they contain oxalic acid that can interfere with normal calcium uptake and metabolism. It's best to alter the diet from time-to-time to vary the nutritional content. Adult Beardies can be offered vegetables every day or every other day, depending on how hungry they are, and crickets 2 to 3 times weekly.

Berries such as raspberries and blueberries can be cut and offered as occasional treats, though they will likely lead to a runnier stool. They can be helpful, however, if a Dragon's appetite drops off. Beardies can see in color and sometimes a brightly colored raspberry will start them eating again. Some fruits are nutritious but low in calcium, or have a poor calcium to phosphorus ratio, or both. Bananas and grapes also contain tannins, which can interfere with protein metabolism. Avocados, rhubarb and eggplant, and flowers like azaleas, daffodils and tulips are toxic and should be avoided.

Worms like wax worms, Phoenix worms, and mealworms can also be offered, but only as treats because of their high fat content. Crickets should be lightly dusted with vitamins (like Zoo Med's Reptivite) and calcium with vitamin D_3 (like Rep-Cal's Calcium with Vit D_3). We put crickets into a 1 gal. Ziploc bag, add the vitamins and calcium, and shake until all the crickets are covered.

You should never offer bugs caught in your house or yard. They frequently carry parasites or poisons that can harm your Beardie. Fireflies, Monarch and Queen Butterflies, and lygaeal bugs are toxic to Beardies and should be avoided.

Brumation

Bearded dragons naturally reduce their activity in the winter as outside temperatures cool. While your Beardie may slow down and eat less, brumation is not the same as hibernation, and your Beardie will still need daily care. Additionally, young Beardies (less than one year) will likely not want to brumate and should not be forced to do so. If you plan on breeding your Beardie, brumation may be necessary to "kickstart" the reproductive cycle in the spring. To simulate natural brumation, you can decrease your Beardie's basking light temperature to as low as 75°F to 80°F and the nighttime temperature to as low as 60°F for 4 to 6 weeks, starting as early as October. Depending on where you live, and if you house your Beardie indoors, it may not be possible to reach a 60°F nighttime temperature. This is okay, so long as you reduce temperatures overall from summertime temperatures. At Dragonspots, we lower basking temperatures to 88°F to 90°F and keep nighttime temperatures around 70°F while reducing the time the daytime light is on by one to two hours.

At lower temperatures, your Beardie's appetite and activity level will also decrease, so you should reduce the frequency and volume of feedings. During this time, it's okay if your Beardie is not hungry. However, he still must have water. A weekly 20 min. bath in lukewarm water, (or more frequently, depending on the relative humidity in your area), will help prevent dehydration. Your Beardie will also become more reclusive, "hiding out" more. A place to hide (hollow log, etc.) should be provided. We find some dragons like to hide under a hand towel that we replace with a clean one as required.

After 4 to 6 weeks, temperatures and timers can be slowly returned to normal, after which your Beardie should return to a regular feeding schedule.

Shedding

Beardies regularly shed their outer skin layer throughout their lifetimes, though more frequently while young and still growing. Beardies do not shed their entire body at once, but shed piecemeal over several days. You may see your Beardie rubbing (scratching) on logs, bricks, rocks, or branches as they try to remove old skin. Giving your Beardie more frequent 20 min. lukewarm baths can greatly help them shed naturally. It is usually best to let nature take care of shedding and not try to help out by "picking at" your Dragon while he's shedding.

Common problems

Gastrointestinal parasites including pinworms, roundworms, hookworms, and coccidia are a common problem in bearded dragons. In the wild, some parasites are expected and live symbiotically with their host Dragon. In captivity, however, Beardies can develop unhealthy parasitic loads because of environmental contamination. These parasites are largely transmitted in Dragon feces, reinforcing the need for proper Beardie hygiene. Symptoms to look for include loss of appetite, lethargy, and runny stool. A veterinarian can use a microscope to identify these parasites and treat accordingly.

Dragons can experience a loss of appetite due to social or environmental stress, such as bullying by a larger Dragon or over ventilation. A loss of appetite also occurs naturally during brumation or at other times when temperatures are low. If your Dragon is not brumating, removing the stress and increasing the temperature to a normal range can solve the problem. Also look for other signs that might indicate a separate illness such as a loose or runny stool. While a dragon's weight will vary somewhat over time, if your Dragon loses more than 10% of its body weight due to not eating, you should take it to a veterinarian.

Respiratory infections are common when dragons live in damp, cool conditions. Symptoms include intermittent wheezing, open mouth breathing, and nasal discharge. A veterinarian can

diagnose and treat these infections with antibiotics, which can otherwise be fatal. Changing environmental conditions may be required to prevent recurrence.

Difficulty in shedding can occur when either the humidity is too low, or the Dragon does not have a sufficiently abrasive surface on which to rub a shed off. It also occurs in dragons that are weakened or dehydrated from a separate illness. Weekly warm water baths can help prevent the condition in the first place. Daily baths can help if the condition has already developed.

Metabolic bone disease can be caused by insufficient UV radiation and accompanying vitamin D metabolism. It is more common in juveniles and its symptoms include lameness and deformities. A veterinarian can confirm the condition, but it is best to avoid it by ensuring your Dragon has appropriate access to UV light.

Yellow fungus disease is a contagious skin infection. It causes patchy, yellow discoloration of the skin, after which normal shedding is hindered, and the skin darkens and dies. It can spread to the tissues under the skin and even into other organs, eventually leading to death. A veterinarian can diagnose this infection and recommend appropriate treatment which may include isolating the Dragon from all others and antifungal and antibiotic medication.

Conclusion

Having said all of these things, it might be useful for you to know how we handle our dragons at Dragonspots.

We use two styles of custom-built white melamine, 50 gallon tanks. Both styles were designed by an engineer with a PhD, specifically for bearded dragons. One style is designed for juveniles and adults, and the other is for babies. Both styles are designed with properties for Dragons including day and night thermal gradient (digital temperature control), variable ventilation, antibacterial/anti-fungal surfaces, humidity control, partitionable for smaller Dragons, and others. The melamine is thermal tested to 160°F, which is much hotter than a dragon will ever get.

Our adults are all housed alone, one Dragon per tank. Each tank has an 18 inch fluorescent UVA/UVB bulb, daytime incandescent bulb (15 to 40 W), daytime ceramic heat bulb (50 W), and dark nighttime incandescent bulb (15 to 50 W). The UVA/UVB and daytime incandescent bulbs are on all day long to provide UVA/UVB and visible light. The ceramic heat bulb is on a digitally controlled thermostat that maintains a basking temperature in the range 98° to 100°F. The cool side has a back vent and variable size front vent (0 to 120 in.²), allowing us to keep the temperature very near 80° regardless of season. The nighttime bulb is on all night and keeps the tank temperature a few degrees above room temperature. Daytime lights remain on for 12 hours except during brumation when they are on for 10 hours. We use single sheet vinyl flooring and provide each Dragon with a combination of wood, plastic, and brick furniture to climb on and hide in.

The adult tanks draw a maximum of 105 W (80 W max average) and the baby tanks draw up to 175 W (135 W max average), which is a consideration when stacking multiple tanks together on a single electrical source.

We feed our adults crickets twice a week after dusting them with vitamin (once a week) and calcium supplements. We feed veggies five days a week including collard, mustard, and turnip greens, or kale alongside yellow squash or zucchini, green or red peppers, green beans, or peas. We chop all veggies into small, "bite-size" pieces (about 1/2 inch square or smaller). Occasional treats include wax worms, Phoenix worms, raspberries, and blueberries.

Our baby Beardies are fed finely chopped greens and crickets three times a day and provided open water in which they can drink and bathe. Our juvenile dragons (up to 10 months old) are given greens in the morning and crickets in the afternoon, every day.

We bathe our adults twice a week in warm water for 20 min., unless they are shedding, in which case we bathe them more frequently.

We keep our adult males and females in separate rooms. We normally house babies in tanks in groups, spreading them out into more space and smaller groups as they grow. Our custom-built baby tanks are adjustable for size so each can provide space for a group or individual from 180 in.² to 720 in.² of floor space, depending on Dragon size.

We monitor humidity and keep it close to 30% at all times.

We handle each of our Dragons every day and separate ones that start getting aggressive as they age, to avoid nipped tails.

Once again, congratulations on your new Beardie! If you have any questions about caring for your Dragon, please drop us a note at <u>Dragonspots@cox.net</u>. We'd love to hear from you!

Dragonspots Alexandria, VA

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