

Bearded Dragon (*Pogona vitticeps*) Difficulty: Intermediate



Bearded dragons are medium-sized terrestrial lizards native to eastern and central Australia. Their preferred habitat is semiarid desert, scrubland, and dry forest. They are almost exclusively active during the day and have an omnivorous diet.

Bearded dragons grow 18-24" long, and have a semi-robust build with a large triangular head, rounded body, slender tail, and a series of spikes along their jowls and sides. Scale texture is otherwise rough. Coloring can be tan, yellow, orange, red, or dark brown with a pale underside.

Bearded dragons are one of the most popular pet lizards in the world due to their generally calm and personable dispositions. With good care, they generally live 10-15 years, although longer is possible.

What You Need for a Bioactive Bearded Dragon Enclosure

- 4' x 2' x 2' PVC enclosure, or larger
- [Exo Terra Reptile Glow Light, small](#), x2
- [75w Arcadia Halogen Heat Lamp](#), x2
- [Basking branch/platform](#)
- Plug-in lamp dimmers, x2
- [Bio Dude Digital Thermometer / Hygrometer](#), x2
- [22" Arcadia Desert 12% UVB T5 HO bulb](#)
- [24" Bio Dude Solar Grow T5 HO Single Bulb Light Strip](#)
- [Bio Dude Glow & Grow 22" LED](#)
- [Zilla 24/7 Digital Timer Power Center](#)
- [4' x 2' x 2' Bio Dude Terra Sahara Bioactive Kit](#)
- [Bearded Dragon Clean Up Crew Pack](#)
- [Desert plants](#)
- Environmental enrichment items ([hollow logs](#), [sturdy branches](#), etc.)
- [Hide/cave](#) (at least 1)
- [Medium water bowl](#)
- [Repashy Calcium Plus supplement](#)
- [Zoo Med Stainless Steel 10" Curved Feeding Tongs](#)

Terrarium Size

For housing one bearded dragon, you need an enclosure no smaller than 4'L x 2'W x 2'H, and preferably larger. Bigger is always better!

For maximum convenience, get an enclosure that opens from the front rather than from the top. There should also be a substrate dam about 6" high. PVC is generally the best material for a bearded dragon enclosure, as it's waterproof, strong, and lightweight. However, glass or well-sealed wood are also options.

Do not house more than one bearded dragon per enclosure. Cohabiting bearded dragons is likely to lead to conflicts, which often leads to injury, and in a worst-case scenario can result in death.

Hatchling and juveniles: 24x12x16

Sub adults(6 months to a 1 year): 36x18x18

Adult: 4x2x2 or larger

Lighting

An **Arcadia 12% or Zoo Med T5 HO Reptisun 10.0** is likely to work the best for a bearded dragon in a 2' tall enclosure. The bulb should be roughly half the length of the enclosure, placed on the same side as the heat lamps, and mounted in a reflective T5 HO fixture like the Arcadia ProT5 or the Bio Dude Solar Grow light strip.

The basking branch or platform should be placed 8-12" below the lamp if there's a mesh top, and 14-16" below the lamp if there isn't. This is because the strength of a UVB bulb's output changes with distance. Your UVB bulb must be replaced every 12 months to maintain its output. Resist the temptation to use other, cheaper brands — when it comes to UVB, *brand matters!*

Bearded dragons are diurnal, which means that they are active during the day. They are stimulated by the presence of bright light in their environment, and they require exposure to strong UVB light in order to stay healthy. Reptiles use UVB light to create the vitamin D that their body needs, as well as to strengthen their immune system, and stimulate production of endorphins. UVB even helps reduce the presence of pathogens, which is especially important for bioactive setups.

Because this is a bioactive setup, you will also need a plant light to encourage healthy plant growth. We recommend at least one **22" Bio Dude Glow & Grow LED lamp or Arcadia JungleDawn LED Bar** for this purpose. This bright light is also good for your bearded dragon's energy levels and mental health!

Lights should be kept on for 12 hours/day, or cycled seasonally from 13 hours/day during summer and 11 hours/day during winter.

Heating

Like other reptiles, bearded dragons are *poikilothermic*, which means that they need a range of temperatures within their enclosure so they can regulate their own body temperature as needed. Areas of heat speed up their metabolism and promote activities like digestion and healing. Cool areas slow the metabolism and promote activities like rest and energy conservation.

Bearded dragon temperature gradient:

- **Basking surface temperature:** 105-115°F / 40-46°C
- **Cool side temperature:** 70-85°F / 21-29°C

To create a basking area for your beardie, you will need a cluster of at least two halogen flood heat bulbs like the **75w Arcadia Halogen Heat Lamps** (optimum wattage may vary) and at least two small ceramic fixtures like the small **Exo Terra Reptile Glow Light** or the **Zoo Med Combo Deep Dome fixture**. If the basking area gets too warm, you can plug the lamps into a lamp dimmer like the **Zoo Med Rheostat** and reduce the heat that way. If the basking area is too cool, you will need higher-wattage bulbs.

Place one temperature probe on the basking surface and other temperature probe on the opposite of the enclosure to track your temperature gradient.

Humidity

Bearded dragons need an environment with moderately-low humidity levels, although they are tolerant of short periods of higher humidity. Ideal average ambient humidity should stay between about **30-60%**.

Keep track of your air humidity levels with a digital hygrometer like the **Bio Dude Digital Thermometer / Hygrometer**, with the probe placed in the middle of the enclosure. To keep track of humidity levels underground, place another probe inside one of the burrows.

If desired, lightly misting your bearded dragon's enclosure first thing in the morning can provide a brief boost in humidity and simulate morning dew, stimulating your pet to drink. By misting in the morning, the water will quickly dry up and not cause significant issues with your total average humidity. However, don't forget to water your plants as appropriate!

Substrate

A thick layer of bioactive-compatible substrate is essential to creating a bioactive bearded dragon enclosure. About 6" of substrate will provide plenty of space for the plants' roots, allow for burrowing, and better facilitate a vertical moisture gradient within the substrate for your CUC (Clean Up Crew).

Because this is an arid setup, no drainage layer is needed. Instead, you can jump to the dirt. You will need a soil-like mix that mimics the sandy soil of their Australian homeland and nurtures drought-tolerant plants. If you want to make your own, you will need a mixture of 40% organic topsoil, 40% fine sand, and 20% Zoo Med Excavator Clay to total roughly 144 quarts of substrate, or 4.8 cubic feet. Mix that with leaf litter, sphagnum moss, and 4 doses of **36qt Bio Shot** to inoculate your soil with beneficial microfauna.

Alternatively, you can let The Bio Dude do the work for you with **The Bio Dude's Terra Sahara bioactive substrate kit**.

To make the substrate functional, make sure to add drought-tolerant CUC organisms like powder blue/orange isopods and arid springtails. You can also add other species like mealworms, superworms, and buffalo beetles!

Decorating the Enclosure

Enclosure décor is more than just making your setup look good. It's also an important part of providing *environmental enrichment* to your lizard, which enhances your pet's quality of life by providing opportunities to express natural behaviors. Use things like sturdy **branches**, **cork flats/hollows**, **caves**, and **plants** to fulfill that need. Don't be afraid to clutter it up!

Live plants in particular are critical to helping your mini-ecosystem function properly. Make sure the plants that you choose are drought-tolerant and edible in case your bearded dragon decides to take a nibble. (TheTortoiseTable.org.uk is a great resource for checking plant edibility!) Succulents, spineless cacti, and grasses can be great choices for a bearded dragon terrarium.

Feeding Your Bearded Dragon

Bearded dragons are omnivores, which means that they need to eat a balanced diet of insects and plant matter in order to be healthy. And like humans, bearded dragons' nutritional needs change as they grow. However, unlike humans, they need to eat less as they get older — not more:

- **Hatchlings (0-6 months old): Insects 2x/day, vegetables daily**
- **Juveniles (6-12 months old): Insects 1x/day, vegetables daily**
- **Adults (>12 months old): Insects 2-3x/week, vegetables daily**

Hatchlings and juveniles should be allowed to eat as many insects they can in a 5-10 minute period at each meal. Subadults and adults should be offered as much as they are capable of eating in about 5 minutes. A portion of veggies, however, is going to be roughly the size of your dragon's body.

The key to success with bearded dragons (and most reptiles, for that matter) is to feed them as large of a variety of foods as possible!

Feeder insect options: crickets, dubia roaches, discoid roaches, black soldier fly larvae, mealworms, superworms, hornworms, silkworms, grasshoppers

Vegetable options: collard greens, cactus pads, spring mix, arugula, kale, pea shoots, alfalfa, bok choy, carrot greens, spinach, dandelion greens/flowers, hibiscus leaves/flowers

Feeder insects should be no larger than your bearded dragon's head. ALL FEEDER INSECTS SHOULD BE LIGHTLY DUSTED WITH CALCIUM SUPPLEMENT BEFORE FEEDING. Non-citrus fruits can be offered occasionally as treats, but due to their sugar content, they should be a frequent part of your dragon's diet.

Calcium & Vitamins

Water

Although they are "desert" lizards, beardies still need a water dish so they can drink water as needed. Choose a medium-sized bowl that is shallow enough to prevent drowning. The water should be changed whenever it gets soiled. Scrub the bowl with an animal-safe disinfectant at least once a week.

Handling Tips

When you first bring home your new pet, resist the temptation to immediately start playing with it. You're huge compared to a bearded dragon, and s/he needs time to figure out that you're not going to eat them. Let your new pet settle in for at least 2 weeks before you start handling.

Once your bearded dragon has established confidence in his/her new home, you can introduce yourself. Let them watch you outside of the enclosure. Rest your hand in the enclosure and allow the lizard to familiarize itself with your hand.

Even bearded dragons can be a bit skittish when they're young and/or in a new situation. But eventually they'll stop running away from your hand and get used to your presence. This is when you can start to handle them. But just because you have reached this step does not mean your pet trusts you. Trust and friendship (as far as it goes for lizards) takes time and daily handling.

Handling Techniques

- Support the whole body.
- Use slow movements.
- Never grab from above, chase them, or pull them out of a hiding place.
- Let the dragon voluntarily climb onto you whenever possible.
- Reward them with a bug or piece of fruit.

To ensure that your pet is getting all the vitamins and minerals they need, you need a calcium powder and a multivitamin powder. Take care not to use these too often; too much vitamins can be just as deadly as too little. **Repashy Calcium Plus** is a good way to provide a safe dose of each at the same time.

- If they are shedding, leave them alone and don't pull on loose skin. Tong-feeding is a great way to bond with your bearded dragon!

Care information courtesy of ReptiFiles. For the full guide, click [here](#).

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