

Green Anole (*Anolis carolinensis*)

Difficulty: Intermediate

The green anole (*Anolis carolinensis*) is a 6-8" / 15-20cm long lizard with a narrow, sharply tapered head; agile body, dewlap, long thin tail, sticky toe pads, and small velvety scales. Males have a large orange to pink dewlap under their throat.

Green anoles may appear brown or green depending on their mood and the time of day, with a pale lower jaw and underside. Females and juveniles have a white stripe down their back. The dewlap of the green anole is orange to pink in color.

Green anoles can be found in the southern and southeastern US and Hawaii, as well as coastal southern California and some islands in the north Pacific Ocean. As a trunk-crown ecomorph, the green anole is semiariboreal in habit, and their preferred habitat is tropical and subtropical forest.

Green anoles are very common in the US pet trade, and are an attractive option to prospective lizard owners because of their cheap price tag. This, coupled with rampant misinformation on this species, has led to widespread abysmal care practices. Despite being perceived as a "cheap" species, green anoles still have specific requirements for their husbandry which must be met for them to thrive in captivity. With appropriate green anole care, this pet can live up to 10 years and possibly longer.

Shopping List

- 24"L x 24"W x 24"H front-opening terrarium, mesh top
- 5.5" dome heat lamp
- 60w heat bulb
- Lamp bracket
- Plug-in lamp dimmer
- 22" T5 HO Arcadia Forest 6% OR Zoo Med Reptisun 5.0 UVB bulb
- 24" Arcadia ProT5 OR Vivarium Electronics T5 HO fixture
- 18" ~6500K high-output LED grow light
- Surge protector with digital timer
- Digital thermometer/hygrometer device with probes, x2
- Pressure sprayer
- 20 quarts coconut fiber substrate
- Climbing branches and/or vines
- Live and/or artificial foliage (live preferred)
- Magnetic gecko feeding ledge
- Calcium and multivitamin supplements
- Soft-tipped feeding tweezers

Housing

Green anoles need an enclosure that is large enough to give them adequate opportunity to thermoregulate, explore, hunt, and generally exercise natural behaviors. They are also semi-arboreal,

which means that as a climbing species, they require a tall enclosure. The minimum recommended enclosure size for housing a single green anole is 24"L x 24"W x 24"H, or 60 x 60 x 60cm. If possible, however, larger is highly recommended!

For the lizard's mental health and ease of access, it is best to use an enclosure that is front-opening and opaque on all sides but the front. It also must be well-ventilated to discourage stagnation and mold growth.

Can multiple green anoles be housed in the same enclosure?

Due to conflict concerns, it's best practice not to house multiple green anoles together.

Lighting & UVB

Green anoles are *diurnal*, which means that they are most active during the day. This also means that they need exposure to bright light and UVB during the day for best mental and physical health. Light sources should be turned on for 14 hours/day during summer and 10 hours/day during winter, with gradual adjustments in-between.

Alternatively, you can use a smart timer (I've been happy with Kasa) to sync your lights with local sunrise and sunset times.

UVB Lighting

UVB lighting can be tricky, because in order to get the right strength of UVB (measured by UV Index, or UVI), distance between the basking branch and UVB lamp must be considered.

- Arcadia ShadeDweller kit — 4-6" / 10-15cm
- Arcadia T5 HO Forest 6% — 7-9" / 18-23cm
- Zoo Med T5 HO ReptiSun 5.0 — 7-9" / 18-23cm

Your bulb of choice should span most of the length of the enclosure, mounted in a reflective T5 HO fixture such as the Arcadia ProT5 or the Vivarium Electronics T5 HO fixture.

(These recommendations are approximations based on the assumption that there is mesh between the lamp and basking area. It is strongly recommended to use a Solarmeter 6.5 to determine the best placement to achieve a UVI of around 3.0 – 4.0 in the basking area.)

General Illumination

A UVB bulb alone isn't bright enough to meet a green anole's light needs. So you will need to supplement with a bright, ~6500K T5 HO fluorescent or LED lamp, long enough to span most of the enclosure. This is particularly important if you have live plants in the enclosure, but it is also valuable for providing additional illumination and supporting your pet's general wellbeing as a diurnal lizard.

The Arcadia Jungle Dawn LED Bar and the Bio Dude Glow & Grow are my preferred choices for this purpose.

Heating

Humans are *warm-blooded*, which means that our body temperature is regulated automatically. Green anoles, however, are *cold-blooded*, which means that they have to move between areas of different

temperatures to regulate their body temperature. In the wild, green anoles warm up by basking in a patch of sunlight. In captivity, the warmth of sunlight can be replicated with heat lamps.

- **Basking area temperature: 90°F (32°C)**
- **Cool side temperature: 70-77°F (21-25°C)**
- **Nighttime temperature: 65-75°F (18-24°C)**

One 60w heat bulb housed in a dome lamp with a ceramic socket should be enough to do the job for one anole in a smaller enclosure, but for enclosures 24" or wider, you may want to use a cluster of two heat lamps. If you notice that the basking area is too warm, dial down the heat down with a lamp dimmer. If your basking area is too cool, you will need a higher wattage bulb.

The basking area should be branch or vine directly under the heat lamp. The warmest temperatures in the enclosure will be at the top (near the heat lamp), and the coolest temperatures will be toward the bottom. You will need to place climbing material at all levels of the enclosure to allow for proper thermoregulation.

Warning: *Green anoles are known to climb upside-down on the mesh on top of their enclosure, which makes them susceptible to burns. To prevent this from happening, use a lamp stand to suspend the lamp over the enclosure, such as the Exo Terra Light Bracket.*

To track the temperatures in your terrarium, use digital probe thermometers. One should have the probe secured with a zip tie on the basking surface under the heat source, and there should be another probe in a shaded area near the lower middle of the enclosure. Most reptile-brand digital probe thermometers function well for this purpose.

Humidity

Green anoles do best in a high-humidity environment, with a **daytime average humidity between 60-70%**, ranging lower during the day and higher at night.

Humidity should be measured by at least one digital probe hygrometer with the probe placed in the middle of the enclosure. Note that low humidity levels can cause health problems for your pet, but so can insufficient ventilation.

To raise the humidity in your green anole's terrarium (and provide an extra source of drinking water), use a pump-style pressure sprayer to wet down the enclosure every morning and evening, preferably when it's dark.

If you live in an area with a dry climate, it may be beneficial to install a cool mist humidifier or fogger such as the [Evergreen Reptile Humidifier](#) to help with maintaining a high-humidity environment at night. Program it to turn on and off for a few hours prior to "sunrise". Humidifiers, foggers, and misters must be used with distilled water and periodically disinfected to prevent illness. Never use a humidifier or fogger during the day, as this increases the potential for illness.

Substrate

As a semi-arboreal species, green anoles spend time both climbing and on the ground. Aside from providing a cushion against falls and a comfortable walking surface, the right substrate can also help maintain healthy humidity levels in your terrarium.

Here are some reliable green anole substrate choices: DIY tropical mix (60% organic topsoil, 40% coconut fiber), [Zoo Med Reptisoil](#), [Zoo Med Eco Earth](#), [Exo Terra Plantation Soil](#), [The Bio Dude Terra Fauna bioactive kit](#)

Only 2" / 10cm should be needed, unless you are planting the plants directly into the substrate. For a 24" x 24" enclosure, that will take at least 20 quarts of substrate. For best results, add a generous layer of leaf litter on top.

Feces and urates should be removed daily, and contaminated substrate should be scooped out and replaced. Substrate should be completely replaced once every 3-4 months, depending on your needs.

Enclosure Décor

Decorations play a vital role in your anole's enclosure as environmental enrichment. These items provide climbing opportunities, hiding places, encourage exercise, stimulate your pet's natural instincts, and help promote overall wellbeing. And, of course, they make the enclosure look nicer!

Options: manzanita branches, ghost wood branches, cork hollows, vines, live, nontoxic tropical plants, artificial plants, cork bark background, 3D background

Dracaena, hibiscus, ficus, pothos, philodendron, spider plant, staghorn fern, bromeliad, and air plants are all safe options for live plants and will help maintain high humidity levels.

Food

Green anoles are primarily *insectivorous*, which means that they get most of their nutrients from eating a wide variety of insects.

Juveniles should be fed daily, while adults can be fed every other day. Juveniles should be allowed to eat as much as they will day, while adults only need 2-3 feeders slightly smaller than the anole's head per feeding, or equivalent.

Best feeder insects for green anoles: crickets, dubia nymphs, discoid nymphs, red runner roaches, red head roaches, grasshoppers/locusts, flightless fruit flies, black soldier fly larvae, mealworms

The key to providing a healthy, balanced diet for your pet is VARIETY. Provide as varied of a diet as you possibly can, and you will be rewarded with a healthier pet that always looks forward to mealtime.

Supplements

To ensure that your green anole is getting all of the vitamins and minerals that they need, you will need a calcium powder and a multivitamin powder — or a good all-in-one like the [Arcadia Earthpro supplement system](#) or [Repashy Calcium Plus LoD](#). For best results, use as directed by the manufacturer.

Water

Although your anole will get drinking water from daily mistings, it's best to always keep a bowl of clean water available on a gecko feeding ledge (not the ground).