

Corn Snake (*Pantherophis guttatus*)

Difficulty: Easy

Corn snakes are a semi-arboreal species of snake native to the southeastern United States, parts of Mexico, and the Cayman Islands. They are most often found in tropical and subtropical grasslands, savannas, and shrublands. They spend a good amount of time on the ground, but they are also proficient climbers.

Corn snakes range from 3' to 5' long, with males tending to be smaller than females. Corn snakes typically have a lithe, slender body, with an orange and red pattern and a black-and-white belly. However, due to enthusiastic “morph” breeding in the reptile hobby, captive-bred corn snakes are now available in a diverse array of alternative colors and patterns.

Corn snakes are some of the most popular pet snakes in the United States. They're manageably-sized, are fairly tolerant of being housed in sub-ideal conditions, and generally tolerate human interaction well. Corn snakes are known to live up to 25 years with good care.

Shopping List

- 48" x 24" x 24" reptile enclosure (preferably front-opening)
- Dual dome heat lamp with ceramic sockets
- 90w PAR38 halogen flood bulb, x2
- Plug-in lamp dimmer, x2
- Thick, sturdy branch (for basking)
- Digital thermometer/hygrometer device with probes, x2
- Infrared thermometer (“temperature gun”)
- 22" T5 HO forest UVB bulb (Arcadia or Zoo Med brand)
- 24" T5 HO light fixture with reflector
- Pressure sprayer
- Surge protector with digital timer
- 3-4" of moisture-retentive naturalistic substrate
- Sphagnum moss
- Reptile hides/caves (at least 2)
- Environmental enrichment items (hollow logs, sturdy branches, live/fake plants, etc.)
- Large water bowl
- Feeding tongs, at least 12"

Housing

Corn snakes are active snakes that love to climb and explore, so although they may seem small, experts recommend keeping them in no smaller than a 120 gallon (48"L x 24"W x 24"H) enclosure. This is based on the formula for calculating a snake's minimum space needs:

snake length x half snake length x half snake length = length x width x height

Of course, using a larger enclosure than the minimum is strongly recommended. Bigger is always better!

Can multiple corn snakes be housed together?

Corn snakes are not social animals, and there is no significant benefit to the animal that would justify keeping two or more in the same enclosure. In fact, keeping multiple snakes together can cause competition for food, warmth, hiding places, and other resources, which is likely to prevent the snakes from thriving. So it's best to keep only one per enclosure.

Lighting & UVB

Corn snakes are crepuscular, which means that they are most active at night, particularly around sunset. Many people attempt to use this fact to argue that corn snakes do not benefit from, and are even stressed by, the presence of light in their environment. However, providing a light source is important to helping regulate their day/night cycle and associated hormonal rhythms. UVB lighting has also been proven to be beneficial to corn snakes' health. So although corn snakes can technically survive without UVB light, we strongly recommend providing it in order to promote optimum welfare in captivity.

UVB Lighting

UVB lighting can be tricky, because in order to get the right strength of UVB (UV Index, or UVI), distance and potential mesh obstruction must be considered. To provide appropriate UVB, you will need a T8 Zoo Med Reptisun 5.0 or T8 Arcadia D3+ Forest 6% bulb, long enough to span half of the enclosure and placed on the warm side of the enclosure, preferably not obstructed by mesh.

The basking branch should be placed as follows. Recommended distance accounts for snake placement on top of the basking surface:

- UVB mounted over mesh: basking branch 7-10" below UVB lamp
- UVB mounted under mesh: basking area 11-16" below UVB lamp

(These recommendations are approximations based on available data. For best results, use a Solarmeter 6.5 to determine the best placement to achieve a UVI of 2.0-3.0 in the basking area.)

Heating

Humans are *warm-blooded*, which means that our body temperature is automatically regulated. Corn snakes, however, are *cold-blooded*, which means that they have to move between areas of different temperatures in order to regulate their body temperature. Corn snakes warm up by sleeping in warm patches of sunlight. In captivity, using a halogen flood heat bulb is the best way to replicate the type of warmth provided by sunlight.

- **Basking surface:** 90°F (32°C)
- **Cool zone:** 75°F (23-24°C)

Temperatures can safely fall to 68°F/20°C at night.

Generally speaking, 90w PAR38 halogen flood bulbs should be plenty to achieve your target basking surface temperature on the basking branch. The basking rock should be placed on top of the black plastic hide box, which will act as your warm hide. If you notice that they're getting too hot, dial it down with a plug-in lamp dimmer. If your basking surface is too cool, you need higher wattage bulbs.

You will need multiple heat bulbs to create a large enough basking area to evenly heat your snake's coiled body. Two bulbs should be enough for an average corn snake.

To measure the basking surface temperature, use an infrared thermometer (a.k.a. temperature gun). To measure the temperature of the warm hide, use a digital probe thermometer. The Etekcity 774 is a good infrared thermometer, and most reptile-brand digital probe thermometers function well.

Humidity

Corn snakes need an average humidity of 65-75% in their enclosure, as measured by a digital probe hygrometer with the probe place in the middle of the enclosure. Humidity levels that are consistently higher or lower than this range can make your pet unwell, although it is normal for humidity to be higher on the cool end and lower on the warm end, as well as higher at night.

To raise humidity in your snake's enclosure, you can use a pressure sprayer to mist the habitat as needed. It's also a good idea to place moistened sphagnum moss inside the cool hide to create a humid retreat. Check and change this moss regularly to prevent mold growth. Placing a layer of leaf litter on top of the substrate can also help maintain humidity.

Substrate

Corn snakes are healthiest and happiest when they are housed on a substrate (a.k.a. "bedding") that imitates the conditions of their natural habitat and facilitates moderate humidity levels. Soil is generally best for meeting this need.

Zoo Med Reptisoil, Lugarti Natural Reptile Bedding, Zilla Jungle Mix, and coconut fiber are the most soil-like commercial substrates. Alternatively, you can use a DIY mix of 40% organic, additive-free topsoil + 40% Zoo Med Reptisoil + 20% play sand.

Provide a substrate layer that is around 3-4" deep. Provide a generous layer of clean leaf litter on top to help retain humidity and give your snake something to explore.

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.

Décor

Decorations play an important role in your corn snake's enclosure as environmental enrichment. Enrichment items encourage exercise, stimulate your snake's natural instincts, and help promote overall wellbeing. And, of course, they make the enclosure look nice!

Décor ideas: additional hideouts/caves, cork logs, sturdy branches, sturdy live or artificial plants

Food

Corn snakes are carnivores, which means that they need a diet of whole animal prey in order to get the nutrition that their bodies need. How often they need to eat can be estimated by age:

- Hatchlings should be fed once every 7-10 days.
- Juveniles should be fed once every 7-14 days.
- Adults should be fed once every 14-21 days.

At each feeding, provide a prey item(s) which totals around 10% of your snake's weight, assuming that it is not obese, and no larger than 1.5x the snake's width at its widest point.

Although mice are the most common feeders, corn snakes need to eat more than just rats and mice to truly thrive. The key to providing a healthy, balanced diet for your pet snake is VARIETY. Provide as varied of a diet as you possibly can, and you will be rewarded with a healthier, less picky snake.

Prey item ideas: mice, young rats, young quail, quail eggs, chicks, green anoles

It's best to offer frozen-thawed prey rather than live to your pet snake. This is safer for the snake and generally considered to be more humane as well. Prey should be thawed in a plastic bag in warm water to around 100°F/38°C before offering. Use soft-tipped feeding tweezers to reduce the risk of getting accidentally bitten when the snake strikes.

Supplements

Corn snakes can survive without vitamin or mineral supplements, but using them occasionally is a good way to help prevent nutritional deficiencies. Every once in a while, lightly dust the prey item with a 50/50 mix of calcium and multivitamin before thawing.

Arcadia Earthpro-A and Repashy CalciumPlus LoD are both good supplements to use.

Water

Your corn snake should have free access to a large bowl of fresh, clean water daily. It should be large enough for the snake to curl up inside if it's in the mood for a soak.

For more detailed information about corn snake care, read the full-length [Corn Snake Care Guide](#) at [ReptiFiles.com](#).