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## Care and Husbandry of the Sulcata Tortoise

Sulcata tortoises originate from northern parts of Africa. The Sulcata is the world's third largest tortoise species reaching shell lengths of over two feet and weighing over one hundred pounds. With the proper care, they can live to be 50-100 years old, making them a lifetime commitment. It is very important that you



research your tortoise before purchasing it to be sure this species is right for you.

As a youngster, your tortoise will need a large enclosure with a screen lid. As this species gets very large it will eventually outgrow a cage and will require its own room in your home. Your tortoise will also benefit from an outdoor enclosure. This should be an escape proof area of the yard where your tortoise can roam and forage for food. The area should include a shelter for your Sulcata to escape the elements. This can be hand constructed or a dog house can be utilized. Make sure the house sits above the ground to avoid flooding and include a wide, sturdy ramp for access. The house should also have a heat source suspended from the ceiling for warmth. Food should always be available and the tortoise should have access to a clean shallow water source. Sulcata tortoises are a burrowing tortoise, so you should monitor that the tortoise does not accidentally burrow out of its designated enclosure. Sulcatas should be kept indoors during the cooler months as they are not equipped to handle the cold temperatures.

Your indoor enclosure should have a screen lid for ventilation. Substrate for the bottom may include paper towels, newspaper, butcher paper, terrarium liners, rabbit alfalfa food pellets or recycled paper products. Calcium sand is not a good choice because it can be ingested which may cause intestinal impaction. Wood shavings, walnut shells and sand are all inappropriate choices as these can be harmful if ingested, may contain parasites and irritating dusts and oils. The enclosure should be cleaned regularly usually once weekly will suffice; with water and a mild soap. Your tortoise will also need a shelter or house for hiding. Artificial plants and decorations may be used to create a more natural looking habitat, but make sure that your tortoise is not ingesting these decorations.

A clean water source should be provided in the enclosure. This water source should be large enough for your tortoise to be able to soak in and climb out of themselves and the water should be shallow enough that your tortoise is not completely submersed since they are not good swimmers. Hatchling tortoises can dehydrate quickly and therefore soaking several times a week is very important. This soaking process should involve removing your tortoise from its enclosure and allowing it to sit in a shallow warm water bath for 10-15 minutes. The water should be shallow enough so that the tortoise can easily keep its head above water.

A heat lamp, ceramic heat emitter is important to maintain the appropriate temperature. The ideal temperature for a sulcata tortoise is 85-100 degrees Fahrenheit with one side being slightly cooler (about 5 degrees) than the other. This difference in temperature allows your tortoise to cool off and avoid overheating. These temperatures are monitored with two thermometers, one on each side of the cage. Your tortoise should have 12 hours of daylight (white light) and 12 hours of darkness for its natural biorhythms. A timer purchased from a pet supply store or hardware store can be utilized to maintain this twelve hour light cycle. At night, the temperature in the enclosure should drop slightly, about 10 degrees, as it would in their natural habitat. Night temperatures should also be closely monitored and ceramic heat emitters, red, blue or purple reptile night bulbs can aid in increasing night temperatures if needed. Always use reptile specific heat bulbs which have modifications that benefit the reptile and helps stimulates eating.

An ultraviolet light is essential for the health of sulcata tortoises. This reptile specific bulb produces UVA and UVB rays and is purchased from your local pet supply store. The UVB rays are important for the natural production of vitamin D which helps the tortoises absorb calcium from its diet. Without the UV bulb your tortoises cannot properly absorb calcium which leads to metabolic bone disease. UV bulbs for reptiles come in two different forms the compact (coil) bulb and the linear florescent tube. While there are many companies that produce UV bulbs, Zoo Med and Zilla are recommended. Follow manufacturer recommendations to determine the type of UV bulb you purchase, and the distance to place the bulb from your sulcata tortoises. All UV bulbs need to be changed every 6-12 months based on manufacturer's recommendations. After that time, even if the bulb still turns on it is not producing the vital rays your tortoise needs for calcium metabolism. Plastic and glass windows are designed to block UVB rays so keeping the tank by a window will not provide essential UVB rays. It is ideal to provide monitored time outside on a warm day in an escape proof enclosure with access to shelter. Natural sunlight is the best source of essential UV rays.

Sulcatas are herbivorous grazers meaning they require a high fiber diet consisting of hays, vegetables and greens. 75% of the diet should be comprised of hays and grasses and may include; buffalo grass, Bermuda grass, orchard grass, timothy hay and western wheatgrass. There are also commercial Sulcata tortoise pelleted grass diets available which can be purchased at your local pet store. The remaining 25% of the diet may be comprised of clover, hibiscus flowers, dandelion greens, collard greens, chickory greens, turnip greens, escarole, endive, romaine, mustard and turnip greens. The best time to feed your tortoise is in the morning after having a few hours to warm up.

Iceburg lettuce has no nutritional value and should not be fed. Spinach, broccoli, cauliflower, cabbage and other cruciferous vegetables cannot be fed as they contain oxalates that bind calcium intake.

Vegetables and fruits may be offered as a treat. Appropriate vegetables include prickly pear pads, green beans, peas, cucumber, zucchini, green peppers and bell peppers. Orange veggies such as carrots, squash and sweet potatoes are very good sources of vitamin A. Fruits should be even more limited but may include strawberries, cranberries, cherries, raspberries, blackberries, apples, grapes, cantaloupe, papaya, mango, melon, blueberries and bananas.

Meat products or cat/dog food should not be fed to tortoises. The protein content of these foods is too high and can cause health issues, including poor bone formation, bladder stones and liver problems.

Sulcatas tortoises do not produce enough calcium themselves and therefore it must be supplemented in their food. This can be done by purchasing a calcium D3 powder from your local area pet store. This powder is sprinkled on food 3-4 times a week for juvenile tortoises (under one year old) or breeding females and 2-3 times a week for adult tortoises.

When picking up your tortoise be sure to support its body with both hands. Your tortoise will feel more comfortable and secure with something under its feet. Falling can be fatal to your tortoise so a two-handed carrying technique is recommended. It is also important to thoroughly wash your hands after handling your tortoise.

An annual examination with a qualified reptile veterinarian is very important to ensure your tortoise is in good health. Some health issues affecting sulcatas include bacterial infections, respiratory infections, eye or ear infections, skin or shell infections and metabolic bone disease.