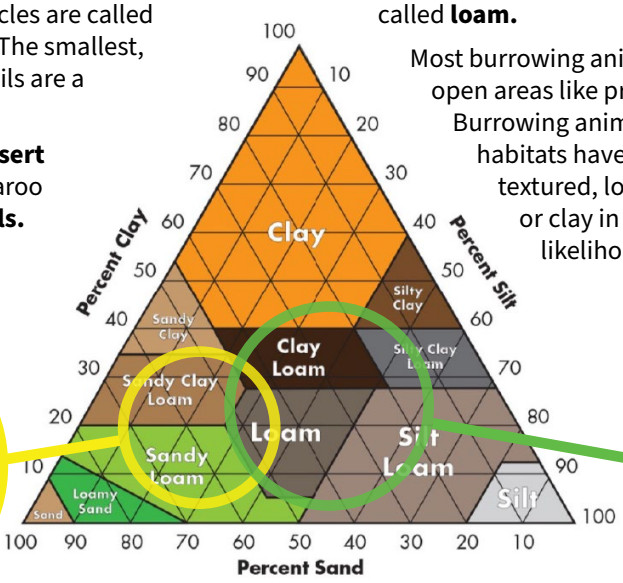
Selecting the Right Soil for Burrowing Species

Soils vary widely in texture and density. Burrowing animals have adapted both physically and behaviorally to the specific features of the soil in their natural environment. It is crucial to provide a soil for digging that is the same as or closely matches what they prefer in the wild. Providing the wrong soil can hinder burrowing activity or result in burrows that are unstable and prone to collapse.

Texture

A soil's texture is based on the size of the mineral particles in the soil. Larger, gritty particles are called sand. Smaller, softer particles are silt. The smallest, microscopic particles are clay. Most soils are a mixture of sand, silt, and clay.

Burrowing animals that come from **desert habitats**, like pocket gophers or kangaroo rats, have adapted to live in **sandy soils.** They employ specialized techniques to build stable burrows and may not be effective diggers in medium and fine textured soils.



Soil with a balanced mixture of particle sizes is called **loam.**

Most burrowing animals live in **grasslands**—open areas like prairies, meadows, or savannas. Burrowing animals that come from these habitats have adapted to live in medium-textured, loamy soils. Too much sand or clay in the soil will increase the likelihood of tunnel collapse.

Density

Soil must be tightly packed to support structurally stable burrows. Undisturbed soil is optimal.

Depth

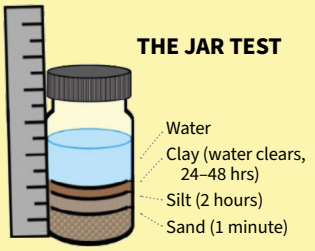
The soil needs to be deep enough to allow the animals to dig structurally sound burrows. In general, as soil gets sandier, deeper burrows are needed for stability.

Some species may also choose to dig deeper homes when housed in warmer environments. This offers cooler areas that they can access to minimize thermal stress.

DID YOU KNOW?

There are ways to determine a soil's texture that do not require specialized equipment. You can find instructions online for testing soil using the 'ribbon method,' which characterizes the texture by feel, or the 'jar test.' Scan the QR code.

THE JAR TEST



ANIMAL CARE AID

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