

Soil stones & other rock fragments

Rock fragments are any soil particles greater than two millimeters in diameter.

Rock fragments can limit the ways we use a soil. If they are found throughout the soil profile they limit the available water capacity. The volume of the rocks subtracts from the amount of water the soil can hold. Rock fragments in the surface layer also limit the ability to cultivate the soil.

The most accurate method of determining rock fragments is to pass the soil through a two millimeter sieve or screen, and then calculate the volume of rock fragments and the volume of soil. The percent rock fragments can also be estimated, although it will probably take some practice before accurate estimates can be made.

SLOPE & shape of land

Range plants vary by slope and aspect. It is important for a range person to understand slope and aspect.

Slope is the steepness of the land. Erosion can be a serious problem on steep slopes unless there are plenty of range plants growing there to protect the soil.

Aspect is the direction the slope faces. The aspect also affects range plants. During the summer in Montana, the south aspect slopes receive the most sunlight. This makes the south-facing slopes the hottest and driest.

Some plants prefer to grow on south-aspect slopes; others prefer to grow on north slopes.

South-slope plants usually are more drought-tolerant. South-slope plants green-up earlier in the spring than north-slope plants.

Animal preference varies with slope and aspect. Cattle usually like flat, rolling country, while sheep and horses like sidehills and ridges. Deer like to loaf near the top of a hill so they can run and hide on the other side when they see a hunter.