

# Assessing the mineral status of your animals

Minerals are an important aspect of sheep and goat nutrition. Deficiencies, toxicities, and imbalances of minerals can cause many problems including catastrophic ones. If you want to know if your animals are getting enough minerals (and in the right ratios), you can test soil, feed, water, blood, and/or tissues (livers usually). While testing is often done because of a suspected problem, it is better to be proactive with your mineral program and test “healthy” animals to assess your flock’s mineral status.



## SOIL

Testing soils can help identify mineral deficiencies and imbalances. If your soils are deficient in a certain mineral, you can follow-up with other tests to confirm a suspected problem.

## FEED

Testing feed goes one step further in identifying potential deficiencies or imbalances of minerals. Mineral levels in feed can help you balance rations. However, just because something’s in the feed doesn’t mean the animal is consuming or absorbing it.

## WATER

Water shouldn’t be overlooked as a source of minerals. It can contain unsafe levels of minerals and other contaminants. Water should be tested about every 3 years.

## BLOOD

Blood testing can provide an immediate mineral status. It can identify toxicities and deficiencies. Blood plasma assesses short-term mineral levels and is usually less accurate than tissue testing. However, whole blood can determine long term selenium status.

## TISSUE

Liver testing is the “gold standard” for assessing long-term mineral status in animals. It is an especially good means of assessing copper and molybdenum levels. While liver biopsies can be done on live animals, it is more common to test livers from healthy deceased animals.

Fall is a good time to test soils. Forages should be tested before critical nutritional needs. Blood and tissue testing should be done in groups of animals for statistically accurate sampling. Five to 10 samples per group is recommended. Liver samples can be saved or frozen, such as from animals you take to slaughter. It’s best to test young growing animals or females that die accidentally or as a result of birthing.

