MINERALS FOR BEGINNERS

Sheep/goats require 15 minerals (7 macro and 8 micro) in their diets. Feeds are natural sources of minerals; however, the amount of minerals in feeds is affected by different factors including plant species (and part) and soil quality. Some feedstuffs are high in some minerals and low in others and vice versa. While minerals are usually incorporated into fed rations, it is usually recommended that grazing animals be offered minerals free choice. Which ones you need to supplement vary by region and farm and animal requirements.

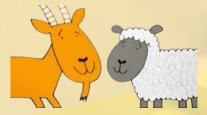
<u>Mineral products</u>. The livestock mineral industry is huge, with many products to choose from, even for minor species like sheep/goats. Products range from plain salt to complete mineral mixes and nutritional (lick) tubs. Which product to feed, to who, and when are decisions that all sheep/goat producers have to make.

<u>Salt</u> (sodium + chloride) is the minimum mineral requirement for sheep/goats. Livestock crave salt. They need it to stay healthy, make economical weight gains, produce milk, and reproduce efficiently. Salt should be ad lib.

Trace mineral salt. Trace mineral salt is salt with trace minerals such as selenium (Se), iodine (I), and/or zinc (Zn) added to it. It lacks macrominerals such as calcium (Ca) and phosphorus (P) which are usually ample in most forage diets. Trace mineral salt is less expensive to feed and can be customized to meet the needs of a specific geographic region, individual farm, or group of animals.

Complete mineral mixes. Complete mineral mixes usually contain all the macro and micro minerals, along with vitamins A, D, and E. They may also contain additives such as a coccidiostat or urine acidifier (to prevent urinary calculi). Complete mixes provide greater assurance that sheep/goats are getting the minerals (and vitamins) they need; however, they are more expensive to feed and may not always be necessary. For commercial farms, this may be a place to manage costs. Complete mineral mixes vary considerably in the amount and type of minerals they contain. It is important to compare labels when deciding which product(s) to purchase.

<u>Lick tubs</u> Lick tubs are another option for providing minerals to sheep/goats, as well as supplemental protein and energy. Tubs are recommended when livestock are grazing low quality pasture. While lick tubs are usually the most expensive way to provide minerals, they can reduce labor and waste; thus, may not be as expensive as they seem.



Species-specific. Sheep and goats need species-specific minerals. Sheep should not be fed minerals that have been formulated for goats and vice versa. One of the reasons is because goats require more copper in their diets; whereas excess copper can be potentially toxic to sheep. All-in-one or all-stock minerals are not recommended for either species, but especially sheep (due to copper).



Monitor intake. It is important to monitor the intake of minerals to make sure animals are consuming adequate and consistent amounts and not overconsuming the mineral product. Read the label for recommended consumption and make adjustments as necessary to reduce or increase intake.

Loose vs. block. For sheep and goats, loose minerals are preferred to blocks. Sheep/goats will consume more minerals in a granular form than block. However, loose minerals need to be fed in a protective feeder to prevent weathering (and loss).