## FEDSTUFFS

FOR SHEEP & GOATS

A feedstuff is any material that provides nutrients or other beneficial properties to an animal's diet. For ruminants like sheep/goats, feedstuffs are broadly classified into roughages and concentrates. Roughages are bulky feedstuffs that are high in fiber. They include hay and pasture, as well as ensiled forages. Concentrates are energy or protein rich feeds, as well as mineral supplements.

PASTURE, BROWSE, and RANGE are usually the primary and most economic sources of nutrients for sheep/goats. Plants in a vegetative state are highly nutritious but can also be high in moisture. Plant species vary by geographic location. Stocking rates (animals per acre or acres per animal) are also quite variable.

HAY is a feedstuff made from dried grasses or legumes. It is typically cut while green, dried, and stored in various bale sizes. The nutrient content of hay is variable and depends on different factors including plant species and maturity of plants at harvest. Hay is the most common feedstuff fed to sheep/goats when fresh forage is not available.



GREEN CHOP is forage that is harvested and fed fresh to housed animals. Depending on the size of the operation, green chop can be hand or machine harvested and fed. "Cut and carry" is a common feeding system for sheep/goats in many parts of the world.

**SILAGE** is a method of preserving green crops for livestock feed. It involves fermenting forage under anaerobic conditions. Corn silage is the most common type of silage. It is the most energy-dense and often fed to sheep/goats on large mechanized farms. If not properly ensiled and fed, silage (and similar feedstuffs) can cause listeriosis (circling disease) in sheep/goats.

BALAGE (baleage) has become increasing popular. It is forage that has been preserved at a higher moisture content (40 to 60%) than traditional hay (90% DM). It is wrapped tightly in plastic to create an airtight environment. HAYLAGE is chopped like silage and has a higher moisture content than balage. It is usually stored in a bunk, silo, or bag, whereas balage is made in a bale or tube.



concentrates are nutrient-dense feedstuffs that are used to supplement forage diets, especially for animals with high nutritional demands, such as pregnant and lactating females and growing lambs/kids. PROTEIN feeds (e.g., oilseed meals) are high in protein (usually over 20%) whereas ENERGY feeds (e.g., cereal grains) are high in energy (less than 18% fiber). Corn is the "gold standard" for energy feeds while soybean meal is the same for protein feeds.



BY PRODUCT feeds are secondary products from various industries, sometimes called co-products. They can be high in protein or energy or both. They offer an alternative to traditional feed ingredients. Examples include soyhulls, cottonseed hulls, corn gluten feed, wheat middlings, beet pulp, and dried distiller's grains. By-products (and other non-traditional feedstuffs) should be tested before being fed to determine their nutrient content (including minerals) as it can vary from batch to batch.