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Pasture Management

Why Pasture Management

- To increase soil fertility
- To increase forage nutrients
- To increase milk yield and weight gain

Pasture Management Steps

- Take a soil sample
 - ✓ Bring soil pH up to 5.8-6.0 by adding lime
 - ✓ Do not put more than one ton of lime per acre at one time
 - ✓ Fertilize according to soil report
- Do not overgraze
 - ✓ 5-6 goats/sheep per acre
- Minimize weed competition
- Incorporate more legumes
 - ✓ Adds nitrogen to soil
 - ✓ Increases protein in diet

Improve Hay Quality

- To increase body condition
- To increase milk yield
- To increase kid/lamb vigor at birth
- To increase weight gain



Steps to Improve Hay Quality

- Soil Sample
 - ✓ Fertilize according to soil report
 - ✓ 3 tons/acre of hay produced removes 87 pounds of nitrogen, 29 pounds of phosphorus and 144 pounds of potassium
- Mow hay during plants boot stage, which is right before seed head emerges to maximize plants nutrient content
- Once baled, keep hay dry by storing under cover and off the ground

If you can't fertilize all pastures at once, start with a section and bring it up to nutrient capacity as you can.

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Sincerely,

Micah Orfield

Extension Agent, Agriculture

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Poisonous Plants to Small Ruminants

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Factors contributing to plant poisoning are starvation, accidental eating and browsing habits of animals. Starvation is the most common reason. Most woodland or swampy-ground pastures contain many species of poisonous plants. These are usually eaten only when animals have nothing else to eat.

The severity of poisoning is related to the quantity of material eaten, the specie of animal eating the plant, portion of the plant and condition of the plant eaten, level of ground moisture, general health of the animal prior to ingesting the substance and the age and size of the animal. Therefore some livestock can eat some of the bad plants and under several of the mentioned conditions, fail to show symptoms of injury or poisoning. At other times death may occur.

Scores of plants contain material toxic to animals if eaten in sufficient quantity. Some of the plants are well known, some quite rare, some are useful, others are valued ornamentals. They may be grouped by the type of poison contained, the effect of their toxins or the part of the plant containing the poison. Some plants may contain several poisonous principles.

Cyanogenetic Plants (glucosides, glycosides)

Common milkweed, a perennial that grows three or four feet high, has a heavy stem and leaves and is frequently found in pastures. The milky white sap is sticky and has a bitter taste but livestock eat the topmost, tender leaves if good forage isn't abundant. Remove plants by spading, pulling, cutting or plowing extensive areas and planting cultivated crops for a year or two.

Horse nettle is a perennial plant, two-feet-high, with spiny stems and leaves, and smooth, orange-yellow berries. Fruits are more toxic than the foliage. It's a common plant in grasslands and fields and is a member of the nightshade family.

Black nightshade is an annual plant, two-feet high, with many branches. Leaves are variably smooth or hairy. The stems are angled in cross-section and sometimes spiny. Clusters of white flowers, one-fourth inch across, bloom in midsummer and are followed by small, black fruits. Both the foliage and green berries are toxic. The ripe berries are not poisonous. Black nightshade is widely distributed.

Mountain laurels and rhododendrons are evergreen shrubs of the Appalachian Mountain region. Plants grow five-feet tall and have glossy green leaves. Flowers appear in clusters at the ends of branches. Livestock eat the leaves in early spring when little other foliage is available. Piedmont Azaleas are deciduous plants of the Piedmont. Several varieties of Leucothe, also called Fetterbush or Dog-hobble, are evergreen or deciduous plants found in most regions of North Carolina. Weakness, nausea, salivation and vomiting are symptoms of poisoning. The preventative is to keep livestock out of areas where these plants are abundant.

Plants Containing Deadly Alkaloids

Fortunately these plants are unpalatable for most wild and domestic animals. Water hemlock and poison hemlock are deadly. Poisoning rarely occurs except in early spring when young plants are accidentally eaten, but the roots, stems, leaves and flowers are always poisonous. Look for and learn to identify these plants in the summer when they are large and showy. The hemlocks are members of the carrot family and have showy, white, umbrella-like flower heads. The roots are the most poisonous parts of the plants. Cut the thick rootstocks lengthwise and you'll find air cavities separated by plate-like partitions of solid tissue. Drops of yellowish, aromatic, resin-like exudates containing the poisonous alkaloid appear at the cuts. Leaves and seeds contain little of the toxic substance and eaten in small quantities, either green or in hay, do little harm.

Mayapple, bloodroot, pokeweed, nightshade and hellebore are other alkaloid-containing plants. They are rarely eaten except when animals are starving for better feed. Deaths from alkaloid-containing plants usually result from severe digestive disturbances, pain and nervous symptoms. Animals usually die in convulsions.

Other Poisonous Plants

Bracken fern is very common in wooded areas and unimproved pastures. Most animals will not eat bracken fern if there is adequate pasture or other feed. In ruminants, such as goats, bracken fern must be consumed over a period of several weeks before toxicity signs develop. Affected animals are listless, show weight loss and may exhibit small hemorrhages on the mucous membranes. They may die from internal hemorrhages.

Buttercups contain an acrid, volatile alkaloid-amenenol, strong enough to blister the skin and cause inflammation of the intestinal tract. Cattle and goats poisoned by buttercups produce bitter milk and a reddish color. The toxic material volatilizes and is lost when buttercups are dried as in hay. A heavy growth of buttercup is an indication of low soil fertility. Have the soil analyzed and apply ground lime and fertilizers as their need is shown. The increased grass growth soon crowds out buttercups.

Poison ivy is widespread over most of the United States. It's a shrub or vine with woody stems that climb by attaching aerial rootlets to fences, walls, trees, etc. Leaves have three leaflets, glossy green and smooth at the edges. Inflammation of the skin from contact with the plants is an affliction of goat keepers more frequently than of goats. The infection can become serious and may need medical attention.