

GOAT HEALTH STARTS WITH GUT HEALTH

Nourishing The Rumen to
Have Flourishing &
Thriving Goats



By The Giving Goat, LLC



DISCLAIMER:

I am not a vet, nor am I a licensed professional. I am a goat farmer and professional goat care consultant. I am in no way a “goat expert” and my opinions are only that of personal experiences, and my insights shared are not medical/veterinary suggestions or care suggestions, and any and all changes to your goats' healthcare regimen should be approved by a vet or licensed professional.

With that being said, enjoy!

~ Hannah

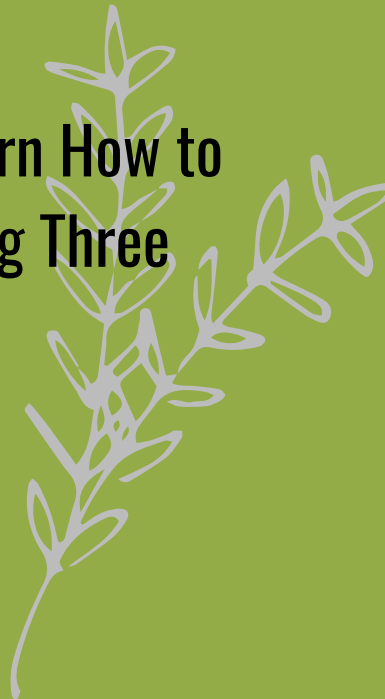

The Importance of Rumen Health For Goats...

Having a properly-functioning rumen is a lifeline for a goat. The rumen is responsible for things from digestion to vitamin production and more. The health of your goats begins with the health of their digestive system. The rumen, which is "fermentation central" is the baseline of this. *Think of raising goats like brewing beer....*

It takes a very specific touch to ensure that microbes are properly balanced to have correct fermentation. Too much or too little of these microbes can result in a bad outcome. For brewers, that may just be some really disgusting beer (Ha Ha!). For goat owners, it is a matter of life and death.

**Continue Reading to Learn How to
Nourish The Rumen Using Three
Main Pillars:**

- 1. Stimulation**
- 2. Balance**
- 3. Problem Mitigation**



Stimulation

The rumen must be stimulated by long-stem forage processing. This type of forage includes hay and fresh browse (leaves, trees, bushes, weeds, etc.).

Pelleted hays, cubed hays, and grain products will not supply the rumen with enough long-stem forage.

A happy rumen is going to be producing:

- A reasonable amount of gas (burping and farting will result)
- Cud-chewing
- Roundness (a full, active rumen may look abnormally round, but this should not be confused with the condition of bloat)



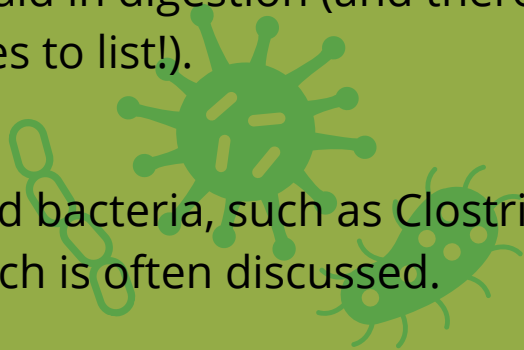
Balance

For simplicity purposes (because I always try to make my education user-friendly!) I like to explain that the rumen contains "good" bacteria & "bad" bacteria.

There is "good" rumen bacteria (as well as fungi and more) that aid in digestion (and there are too many species to list!).

There is also bad bacteria, such as *Clostridium perfringens* which is often discussed.

When there is a properly functioning rumen, the different members of the microbiome all happily coexist. However, when (mostly due to owner fault) the rumen is not functioning correctly or nourished properly, an imbalance of bacteria occurs and the proliferation of harmful bacteria ensues.



A Deeper Look Into The Microbiome Balance



A look into the microbiome...

I try to keep things very simple and straight to the point, but I think it is important to put the “micro-biome” into a “macro” lens and enlarge the topic to actually instill the understanding that everything that goes on in your goat’s digestive system is bacteria-related.

The imbalance of bacteria is a common result of the overfeeding of carbohydrates, sugars, and starches (which can lead to enterotoxemia or acidosis), the overfeeding/sudden consumption of rich forages and feed products, or other sudden dietary changes. Bacteria dysfunction and imbalance is the cause for Enterotoxemia, which is the overgrowth of *Clostridium perfringens*. Bacteria dysfunction is also the reason for bloat. Bloat can have multiple causes (lush pasture, rich legumes, sudden dietary changes, and more) but all of these things just lead to the rumen bacteria functioning improperly. When the rumen bacteria is thrown off due to dietary changes, such as suddenly eating rich legumes, there is an increased production of biofilm-associated mucopolysaccharide. This big word just means that there is a biofilm created from certain bacteria that causes frothing. In frothy bloat, the grass, clover, alfalfa, or whatever led to the situation occurring is NOT what is actually doing the frothing in your goat's system. Rather, it is a production from the rumen microbes. Then, this froth prevents proper movement and release of gasses leading to the buildup of gasses, which is what bloat is. Some of the legumes do possess saponins that increase the level of frothing, but this is secondary to the actual cause of frothing.

A Deeper Look Into The Microbiome Balance



Similarly, a condition called acidosis is often misunderstood as just "a pH imbalance from feeding the wrong thing/too much feed." But it is not as though you suddenly gave a grain product that was super acidic and therefore caused acidosis, because grain itself is not an acid. What happens in cases of acidosis is that too much grain/feed/etc. enters the body at a rate that volatile fatty acids (VFAs are a natural, normal by-product of digestion in goats) are made so rapidly that the body cannot utilize them and transport them, so they stay in the digestive system. When they stay, the good bacteria that cannot tolerate as acidic of an environment are inhibited, and the bacteria that can tolerate acid (specifically bacteria that can cause problematic digestive issues) proliferate. So really, this digestive issue that most people see as "you fed too many acidic foods" is really "the gut microbiome is out of whack."

And this is the reason that I've gone into detail discussing these issues, to shift the mindset from the idea that what you fed was wrong, and rather understand that what you fed led to the rumen being imbalanced. Once you achieve this mindset, you will be better equipped to protect and nourish the rumen. Not only do you need to fight the tip of the iceberg (i.e., dosing oil to reduce froth, or dosing baking soda to raise rumen pH), but you also need to follow up with bacterial support as what you cannot see is what will have a long-term effect on your goat's ability to thrive.

Problem Mitigation



Preventing Problems:

Feeding diets that are roughage-based as opposed to grain/concentrate-based will keep the rumen healthy and happy. Offering as much fresh forage as possible is extremely beneficial. Goats are designed to process forage, but over the years of domestication have been led to consume a diet that is not synergistic with the health of their bodies. Of course, minimal and thoughtful use of grain products can be beneficial, if done in correct balance with forage to continue proper rumen stimulation. When making any dietary changes, do so slowly and gradually so as not to stress the rumen microbes.

Treating Problems:

It is important that every goat owner has a rumen-care arsenal. While proper feeding maintains a healthy rumen, it takes more than just a good diet to rebuild a problematic rumen environment. If your goats frequently get sick, have digestive issues, have been treated with multiple chemical medications throughout their lives, or are generally unthrifty and not thriving, you need to tackle the rumen issues by restoring **Balance & Function** effectively.

See next page

Rebuilding The Rumen & Fighting Crises

When working with a problematic rumen, I have three classifications of "tools" that may be required. These are **Cleaners, Probiotics,** and **Nourishments.**



Cleansers

Cleansers are toxin-clearing tools used to reset the rumen flora completely. If a bacteria buildup, a poisoning, or a severe imbalance occurs, sometimes the rumen needs to be flushed and cleansed in order to rebuild the correct microbiome.

Cleansers include:

Activated Charcoal - 1 TBSP per 30lbs crisis dose

Milk of Magnesia - 15cc per 60lbs crisis dose

Pre-made formula GI Back On Tract by Land of Havilah Herbals



Probiotics

When it is time to start rebuilding the rumen flora, probiotics are the best way to do this. You can get probiotics from many sources.

Rumen Transfaunation/Cud Transfer - great for the most urgent situations to get goat-specific gut flora. This is the process of stealing cud or rumen contents from a healthy goat and administering them to the goat in need, and therefore repopulating their gut flora.

Dark Beer - Dark beer is great for completely restarting a rumen, the microbes in beer are highly synergistic with the microbes that goats need for their rumens.

Ruminant Probiotics - store-bought goat-specific/bovine/ruminant probiotics are ideal to boost the gut for severe or mild situations. While I often recommend using them with dark beer for severe cases, they can and will do enough good on their own for most situations of balancing gut flora. I prefer the gel form of probiotics, and the brand I like to use is Probios.



Nourishments

There are so many ways to nourish not only the entire body, but the digestive system, including the rumen, with... HERBS!

There are many herbs that I like to use for rumen health:



Cayenne - for overall health, restoring B vitamins, restarting low gut motility.

Ginger and Cinnamon - not only as soothers for the digestive system, but also stimulants to increase motility and restart the peristaltic action of the gut.

Slippery elm and/or Marshmallow Root - soothing and protecting for the digestive system of goats who have suffered damage and distress.

OTHER SUPPLEMENTS:

Apple Cider Vinegar - I always use ACV to nourish troublesome rumens. ACV acts as a buffer balancing rumen pH levels. It also contains MANY probiotics to aid in digestion. ACV also contains Malic Acid which can aid in cleansing the liver and detoxifying the body.

Good Health Starts In The Gut...

For questions, contact The Giving Goat LLC through:

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