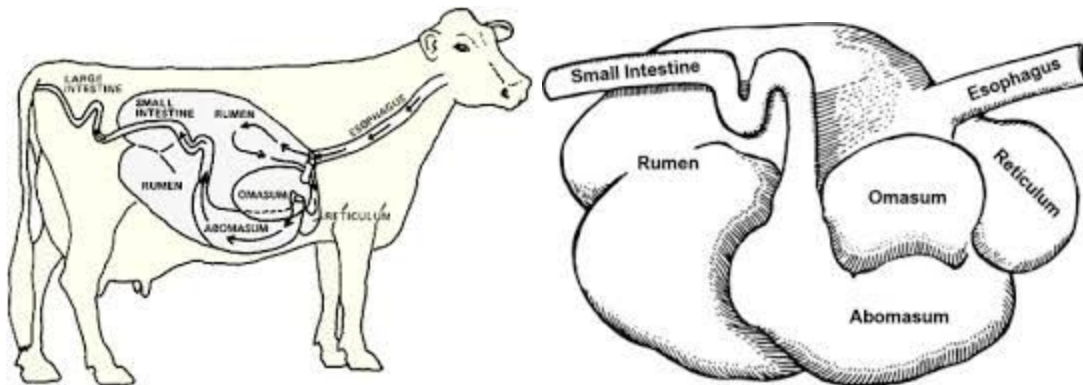


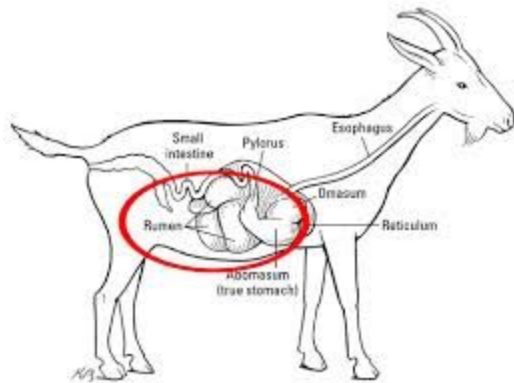
2020 Edgecombe Summer Fun Ruminants



What is a Ruminant? If you break the word apart you will notice the word “Rumen”. A **rumen** is the large 1st compartment of the 4 compartment stomach in some hooved animals. Ruminants include many livestock including cattle, sheep, goats, but also camelids, deer and giraffes to name a few. For this lesson we will mainly focus on the livestock species. Another distinguishing factor of ruminants is that they do not have a top row of teeth like humans but rather a tough flat gum. They use their tongues to help them pull the grass to eat. They chew with the molars in the back of their mouths and then swallow their food, only to regurgitate the **bolus** and chew it again. This is called chewing their **cud**. It helps to break down the food more and makes it easier to digest while incorporating more saliva to help break down food particles. While they are chewing their cud, they are also ruminating the other partially chewed up food in their rumen. Doesn't that sound really gross?? I'm glad humans are not ruminants... talk about awkward dinner parties! The rest of their 4 compartment stomach includes the reticulum, omasum and abomasum. The **reticulum** is most known for its honeycomb structure and controls the contractions in the rest of the system. The **omasum** consists of many folds that are used to increase surface area and absorb water. The **abomasum** is the “true stomach” because it is acidic and breaks down the food, much like ours. We will explore more of the digestive system in our zoom session!



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The Ruminations Game

In order to learn more about the path the food particles take in the ruminants digestive system, cattle trivia, milk trivia and your acting skills, grab some friends to play the Ruminations Game from Ellen McHenry's Basement Workshop. Following this link, you can download all of the materials that you will need for the game. <http://ellenjmchenry.com/the-ruminations-game/>

YouTube Videos

Here are some YouTube Videos to help you understand Ruminations

- <https://youtu.be/iHpVGJ2RhDk?t=9>- FOR Kids the cow's stomach- AgriComm
- <https://youtu.be/mlLtZRp374>- mobile dairy classroom for k-3
- Use this video <https://youtu.be/E7I7qsZpgUs>- Dr. Andrew Martin, from Central Wisconsin Ag Service, explains the ruminant digestive process on a painted cow.
- Use this video too <https://youtu.be/ts-TiVDIRz4> -NDSU cannulated/fistulated steer
- Video of beef lifecycle https://youtu.be/y_QxKsG4wRY -farm to fork from tennessee 4-her