Monogastrics VS Ruminants

By Melissa and Lindsey
What is Digestion

- Digestion - the breaking down of foodstuffs in the body into a form that can be absorbed and used or excreted
Ruminant Vs Monogastric Differences

- Anatomy
- Fermentation
- Diet
Digestive System - Pig

Accessory organs of the mouth
Mouth

Teeth

Esophagus

cardiac valve
Digestive System – Pig Cont.

Stomach

Small intestine

Large intestine

Rectum
Pigs Stomach
Pig’s Digestive Track
Regions of a Pigs Stomach

1 – Cardic Gland
2 - Esophageal Gland
3 - Fundic Gland
4 - Pyloric Gland
Humans Digestive Track

http://kidshealth.org/PageManager.jsp?lic=1&article_set=59299&cat_id=20607
Monogastric Stomach – Human

• How it works

• chyme – partly digested food in the stomach mixed with stomach acids regulates the amount of food going into the intestines

• cardiac sphincter – closes and opens at the entrance of the stomach

• pyloric sphincter – closes and opens at the exit of the stomach
Functions of the Stomach - Human

- Stores Food
- Breaks Down Food
- Kills Germs
- Produces Body Fluid
Regions of a Human Stomach

- Esophageal
- Non-glandular
- Cardiac
- Secretes mucus
- Fundic
- Parietal cells
- Chief cells
- Pyloric
- Mucus
Can You Identify - # 4, 5, 11, 12
Were you right??
Digestive System - Cow

- Accessory Organs
- Mouth
- Teeth
- Upper Dental Pad
- Esophagus
- Cardia
Accessory Organs Continued

- Esophageal Grove
- Stomach
- Small intestine
- Cecum
- Large intestine
Digestive System – Cow
Stomach

- 1 Stomach 4 Comartments
- 1. Reticulum
- 2. Rumen
- 3. Omasum
- 4. Abomasum
Cow’s Stomach

- Rumen
- Reticulum
- Omasum
- Abomasum
Reticulum
Rumen
Omasum
Abomasum
Can You identify the Cow?
Ruminant or Monogastric?
Ruminant or Monogastric?
Stomach Capacity Activity

- Cow 53.5 gal
- 3.5 gal horse
- 2 gal pig
- ¼ gal. human
References

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