



Junior Stockman's Club

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COUNTY EXTENSION DIRECTOR

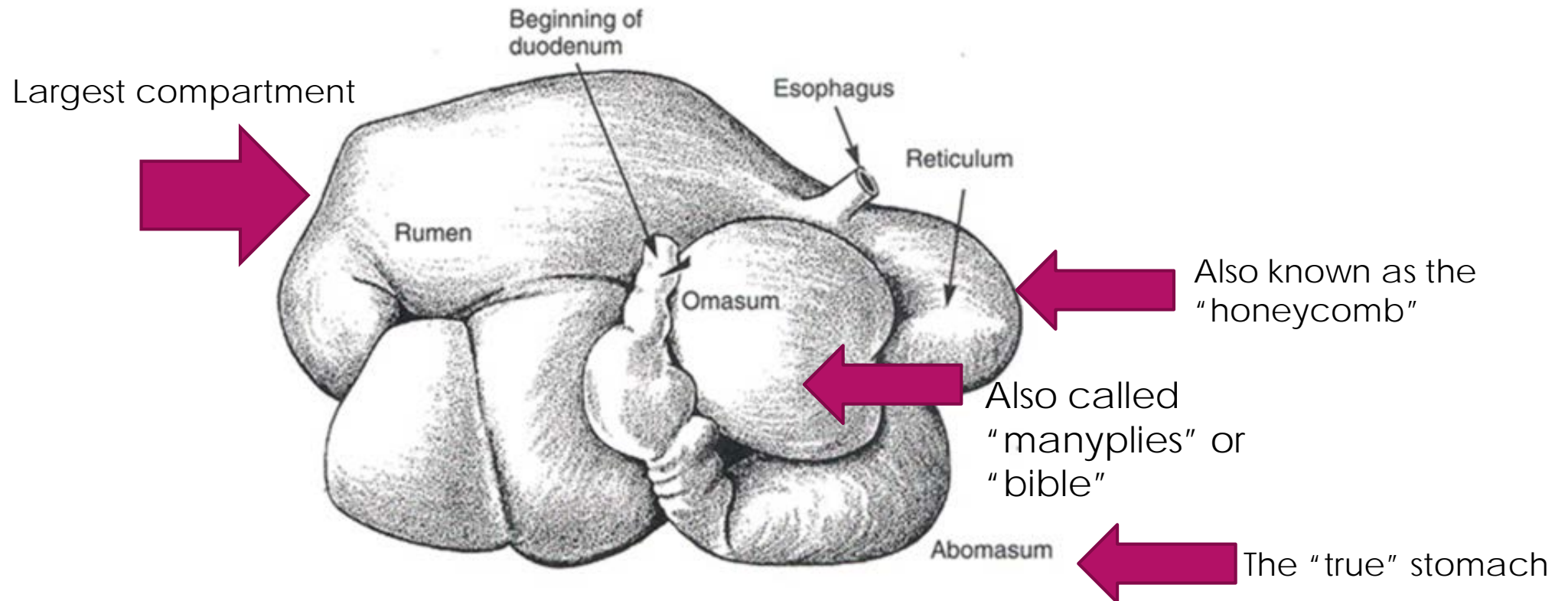
Nutrition: Facts About Cattle

- ▶ Cattle are known as having what type of digestive system? Monogastric or ruminants?
- ▶ How many compartments does a ruminant animal have? 2, 4, 6, or 8? Can you name them?
- ▶ What is the name of the largest stomach compartment?
- ▶ How much feed per day would you expect a 1,200 lb cow eat? 2 lbs, 10 lbs, 30 lbs, 90 lbs?
- ▶ How much would a 600 lb steer eat? 2-3 lbs, 5-7 lbs, 15-18 lbs, 25 lbs PLUS?
- ▶ What is the most common grain fed to feedlot cattle? Wheat, corn, milo, or oats?
- ▶ Name five things you can feed cattle.

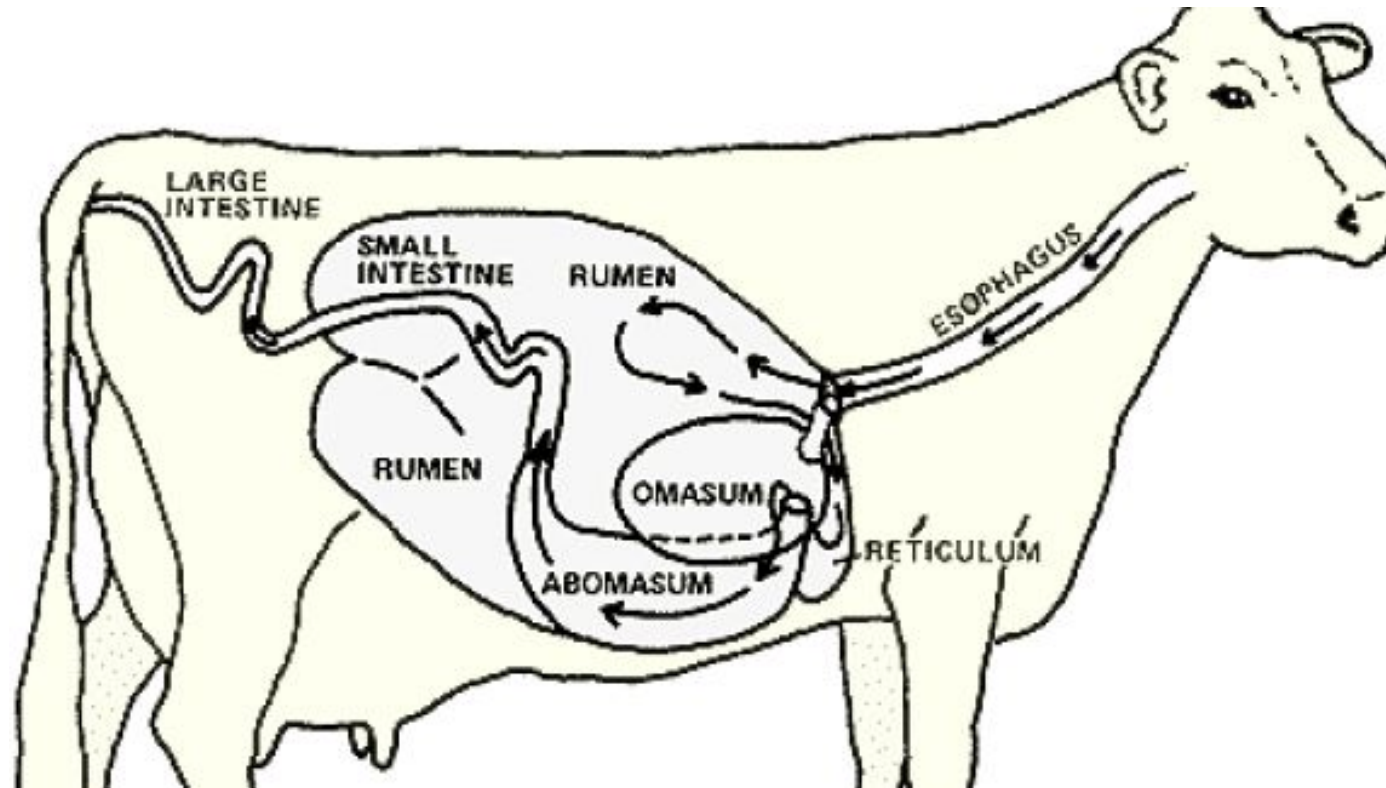
Nutrition: Facts About Cattle

- ▶ Cattle are known as ruminants. Pigs, horses, dogs, cats, humans are known as monogastrics.
- ▶ There are four compartments in the ruminant digestive system: reticulum, rumen, omasum, and abomasum.
- ▶ The rumen is the largest compartment. Sometimes called the “paunch”, this allows the animal to break down and digest fiber (hay, grass, roughages)
- ▶ A 1,200 lb beef cow will generally eat 25 to 35 lbs of feed/day, but it depends upon the quality of the forage.
- ▶ A 600 lb steer should eat 15-18 lbs of feed per day.
- ▶ Corn, milo, oats, alfalfa, prairie hay, brome hay, straw, fescue, and any manner of other feeds like distiller’s grains, dried distillers grains, corn gluten feed, corn gluten meal, etc.

The Ruminant Digestive Tract



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Feed Identification - #2 Yellow Corn



- ▶ Number 1 feed grain in the U.S. is #2 Yellow corn.
- ▶ U.S. grows 12-15 billion bushels per year; Iowa #1 state followed by Illinois then Nebraska; Kansas is #6
- ▶ Many uses: livestock feed, ethanol production, sweetener, co-product feeds
- ▶ 56 lbs per bushel; 8-10% protein, high in energy
- ▶ Grown in every state in the union

Feed Identification - Oats



- ▶ Oats – cereal grain, planted in the early spring, harvested in early-mid-summer.
- ▶ 32 lbs per bushel; protein 11-14%
- ▶ Highly fibrous, good for horses, and growing calves; hull is 25-30% of the weight
- ▶ Low in energy than corn, milo, or wheat
- ▶ Most farms used to grow a few acres of oats; not many anymore
- ▶ South Dakota, Minnesota, Wisconsin top three states

Feed Identification - Wheat



- ▶ Hard red winter wheat
- ▶ Kansas #1 state in production
- ▶ 60# per bushel; 10-12 % protein, high energy; similar to corn
- ▶ Higher in protein than corn
- ▶ Used mostly for bread production
- ▶ Other types of wheat for noodles and pasta, other foods
- ▶ Fed to livestock in limited quantities
- ▶ Highly fermentable, can cause digestive upsets if fed in too high of quantities

Feed Identification – Milo or Grain Sorghum



- ▶ Milo, also known as grain sorghum is primarily used as feed for livestock and for ethanol production
- ▶ Kansas #1 state in milo production by far, with Texas as a distant #2
- ▶ 56 lbs/bushel
- ▶ Hard seed coat, must be ground or flaked to be digested by livestock
- ▶ 10% crude protein, similar to corn in energy content

Feed Identification - Soybeans



- ▶ Generally do not feed soybeans whole to animals, but they can be.
- ▶ High in oil content (20%), which is used for cooking, baking, in biodiesel and in some plastics, paints, varnishes
- ▶ Soybean meal (80%) is used as a protein supplement in beef and swine diets

Feed Identification – Soybean meal



- ▶ Co-product of soybean oil production; used for cooking oil and food production
- ▶ High in protein; 44-48% protein
- ▶ Mixed with a lot of swine and beef cattle diets
- ▶ 85% of the soybean crop is crushed for oil and meal

Feed Identification – Dried Distillers Grains



- ▶ A by-product of corn or milo, usually
- ▶ Left over after alcohol is removed to make ethanol blended with gasoline
- ▶ Very palatable feed; fairly high in protein and in fiber

Feed Identification – Prairie Hay



- ▶ Prairie hay, or native hay consists of a mixture of native grasses
- ▶ Included: big bluestem, little bluestem, Indiangrass, sideoats grama, buffalograss, and switchgrass
- ▶ Low in protein, high in fiber, best suited for beef cow diets

Feed Identification - Bromegrass hay (Smooth brome)



- ▶ Bromegrass is a “tame” grass – cool season grass
- ▶ Needs nitrogen fertilization to produce well
- ▶ Waterways and hay meadows
- ▶ Hay best suited for beef cows and growing calves
- ▶ Higher protein than prairie hay

Feed Identification – Alfalfa hay



- ▶ Alfalfa is planted (tame), but a perennial crop (3-5 cuttings per growing season)
- ▶ Legume hay, fixes nitrogen into the soil
- ▶ High in protein, higher than most other hays
- ▶ Most fed to dairy cattle, horses.
- ▶ Feeding straight alfalfa can be problematic in cattle