

ASA Presentation Notes Lesson 8.1

Unit Name: Unit 8 Animal Health

Lesson Topic: Lesson 8.1 Popular Pathogens

Presentation on: Infectious Disease Causing Agents

Agents that Infect Animals.

- Bacteria.
- Virus.
- Fungi.
- Protozoa.
- Prions.

Bacteria.

- Prokaryotes – single-celled organisms.
- Organelles are not membrane-bound.
- Three basic shapes:
 - Cocci.
 - Bacilli.
 - Spirilla.

Bacteria Shapes.

- Cocci:
 - Spherical or egg-shaped.
 - Chains are streptococci.
 - Clusters are staphylococci.
 - Examples: strep and pneumonia infections.
- Bacilli:
 - Rod shaped.
 - Examples: anthrax and salmonella.
- Spirilla:

- Spiral or corkscrew shaped.
- Examples: leptospirosis.

Virus.

- Very tiny.
- Have a core of nucleic acid with a protein covering.
- Characteristics of both living and nonliving material.
- Only grow and reproduce inside a living cell.

Virus Size.

- How big is a virus?
 - To see a virus go to <http://www.cellsalive.com/howbig.htm>
- What is a nm?
 - Nanometer = .00000004 inches.
- Example: influenza.

Fungi.

- Eukaryotes – have membrane-bound organelles.
- Common forms include molds and yeasts.
- Example: Ringworm.

Protozoa.

- Eukaryotes – single-celled organisms.
- Often parasitic.
- Examples: Coccidiosis in animals, malaria and giardia in humans.

Prions.

- Abnormal form of protein that clumps together inside a cell.
- Causes brain-wasting diseases, such as scrapie and Bovine Spongiform Encephalopathy (BSE)

ASA Reflection Page

List 5 key points that are important to remember from this presentation.

- 1.
- 2.
- 3.
- 4.
- 5.

List 3 ideas or concepts that this new information has in common with previous things learned.

- 1.
- 2.
- 3.

List questions or ideas that remain unclear about the information presented that should be asked for clarity at the appropriate time.