

Biosecurity for Goats



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What is Biosecurity?

- ▶ A Collection of management practices which protect a herd from the entry of new diseases and minimizes the spread and/or adverse affects of disease within a herd.
- ▶ A preventive flock health program that utilizes Best Management Practices.
- ▶ Based on.....



Environment



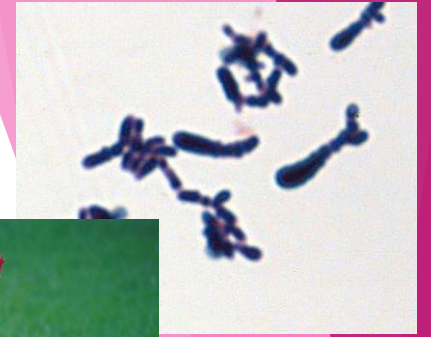
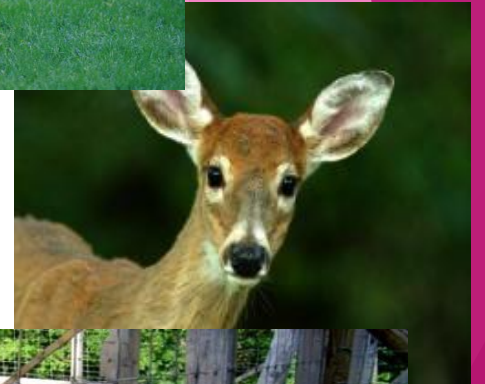
Disease Agent

Immunity



Biosecurity Challenges

- ▶ Biological/Chemical
- ▶ Facilities, Contact with other livestock, management
- ▶ Incoming/Returning Animals
- ▶ Vehicle/Equipment/Traffic Flow around farm
- ▶ Feed and Water Sources
- ▶ Manure Management
- ▶ Other Animals - Dogs, Cats, Wildlife, Rodents
- ▶ Access of farm to visitors



Best Management Practices

BMP's are things that we can do to reduce hazards to our herds:

- ▶ If possible maintain a closed herd
- ▶ Maintain an isolation area for sick animals
- ▶ Purchased additions should come from reputable sources. Establish a protocol for re-entering of animals that leave the herd ie. quarantine
- ▶ Good nutrition
- ▶ Clean and dry kidding area

Kidding Area Management



- ▶ Kidding is the highest priority area
 - ▶ Clean and dry
 - ▶ Not overstocked - indoors or out
 - ▶ Not a hospital area
 - ▶ Depending on disease status - separate the kids ASAP
 - ▶ Do not use colostrum from CAE does or Johnes suspects

Johne's Disease

- ▶ A disease that affects the intestines of ruminants.
- ▶ Caused by a tough bacteria - *Mycobacterium paratuberculosis*
- ▶ Newborns and young animals are the most susceptible and can become easily infected by ingesting infected manure from adults
- ▶ It is a progressive disease which can take 3 - 10 years for it to develop into a chronic diarrhea with weight loss.
- ▶ No treatment. Must implement control strategies to prevent future infections of young animals.



CAE

Caprine Arthritis Encephalitis

- ▶ A viral disease
- ▶ Multiple systems are affected: arthritis, pneumonia, mastitis, weight loss (more common in adults, encephalitis (more common in kids).
- ▶ Clinical signs: A high percentage of infected goats will not show signs. Variable signs: Adults - lameness, distended joints, weight loss, rough hair coat, pneumonia, mastitis or a hard udder. In kids (2-4 months old) the most common sign is inflammation of the brain, paralysis, neurological signs.
- ▶ No treatment or vaccine
- ▶ Transmitted in colostrum and milk; <10% chance in utero;
- ▶ Fairly widespread
- ▶ Genetics - Bedouin Black goats may be more resistant



CAE Management

- ▶ Prevention starts at birth
- ▶ Kids need to be removed from dams immediately
- ▶ 90% of infections come from the colostrum and milk
- ▶ Feed heat-treated colostrum or colostrum replacer
- ▶ Feed milk replacer or heat treated milk or milk from test negative does
- ▶ Yearly testing prior to kidding using blood ELISA test



CL

Caseous Lymphadenitis

- ▶ Caused by a bacteria *Cornyebacterium pseudotuberculosis*
- ▶ Causes abscesses which can open and drain contaminating the environment allowing it to spread.
- ▶ Antibiotics do not work well
- ▶ Vaccine?



Q Fever

- ▶ Sheep, goats and cattle carry the bacteria, *Coxiella burnetii*
- ▶ Causes abortions and stillbirths in sheep and goats.
- ▶ The bacteria can be shed in feces, urine, milk and birthing fluids.
- ▶ **Zoonotic** - people can become infected from inhaling contaminated dust or consuming unpasteurized dairy products. Causes flu-like illness and pneumonia in people.

Parasite Management

- ▶ Can be a huge health problem
- ▶ Gastrointestinal worms cause many deaths in goats every year.
- ▶ Causes anemia and sometimes scours.
- ▶ Seeing an increase in drug resistance
- ▶ Regular deworming may not be enough and may actually be contributing to the drug resistance. Rethink your Parasite Management.
- ▶ Target Deworming Programs

Parasite Management



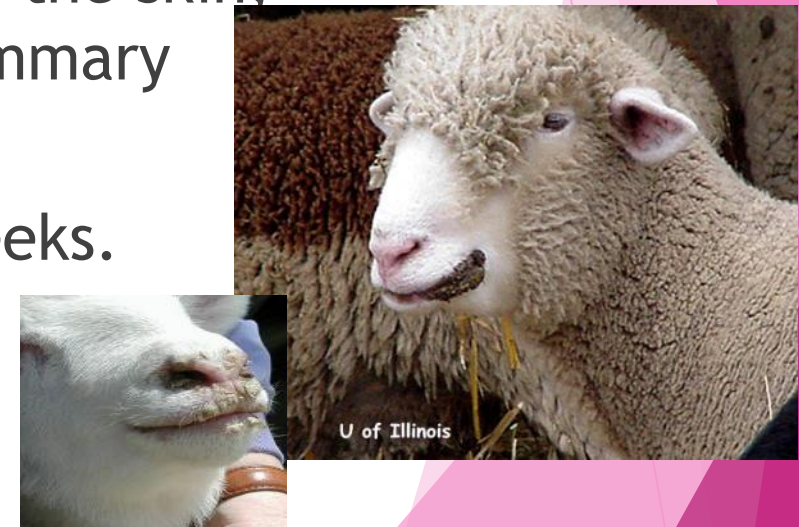
- ▶ Check your goats
- ▶ Concentrate work control efforts on the goats that need it - kids
- ▶ Browsing = less exposure
- ▶ Reduce stocking density
- ▶ Diet - Better plane of nutrition = better immune system
- ▶ Manage your pastures
- ▶ Genetics?

NYS Fair Requirements

- ▶ Certificate of Veterinary Inspection
- ▶ USDA approved individual Scrapie Program Identification
 - ▶ USDA approved tags or
 - ▶ A legible registration tattoo or
 - ▶ A legible USDA approved herd tattoo and individual animal ID number or
 - ▶ Electronic ID is the goat is enrolled in the Scrapie Flock Certification Program and/or the electronic ID is recorded on the goats registration paper.
- ▶ Veterinarian issuing the CVI inspects the flock for evidence of contagious, infectious or communicable diseases.
- ▶ Special attention given to Soremouth

Soremouth

- ▶ Caused by a pox virus
- ▶ The most common skin disease affecting sheep and goats.
- ▶ Highly contagious viral infection that can ***also produce painful human infections.***
- ▶ The virus causes vesicles which form scabs on the skin, usually around the mouth, nostrils, eyes, mammary gland and vulva.
- ▶ The disease usually runs its course in 1 - 4 weeks.



RABIES Vaccination

- ▶ Currently this is no approved rabies vaccine for goats, however, individual fairs can require rabies vaccination even when a it will be used off-label.
- ▶ When required
 - ▶ Animals that are 4 months of age and older on the date of fair admission
 - ▶ Vaccine must have been given within the past 12 months.
 - ▶ Acceptable proof of rabies vaccination is needed on the health certificate.
 - ▶ Name of product used and date given is filled in for each animal
- ▶ NY State Fair requires all animals to be rabies vaccinated.

Scrapie

- ▶ Scrapie is a fatal, nonfebrile, insidious degenerative disease affecting the central nervous system (CNS) of sheep and goats.
- ▶ Any sheep or goat that have recently given birth or have a vaginal discharge along with their offspring, are not allowed at a fair
- ▶ Scrapie may be present in high concentration in fluids associated with birth and the risk of transmission is considered highest at this time.
- ▶ Clinical signs: weight loss despite good appetite; itching; biting at legs or side; incoordination; neurological signs.
- ▶ Scrapie Eradication Program.



At the Fair

- ▶ Do not share other equipment, grooming supplies with other herds.
- ▶ Minimize contact with other livestock
- ▶ If your animal should become ill at the fair alert your 4-H leader and state veterinarian/tech
- ▶ Minimize stress - clean feed and water, fans to minimize heat stress, maintain good sanitation.
- ▶ Always wash your hands after handling any animal



After the Fair

- ▶ Isolate returning animals away from home herd for 2 weeks.
- ▶ Handle them last
- ▶ Clean and Disinfect equipment
- ▶ Monitor returning animals for illness



Questions???

