

# Q-Fever and Its Effects on a Goat Operation

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# Q-Fever...What is It?

- Query or Queensland Fever, better known as Q-Fever, is caused by the bacteria *Coxiella burnetii*.
- It can cause major abortion storm in goat herds
- As a zoonotic disease, it can and is spread to humans and other animals
- The disease causes great economic distress to the producer
- With no vaccine available, producers must implement other ways to prevent abortions
- With Q-Fever able to live in the soil for months or even years and ride the wind to places miles away, producers need to have a management plan in place, not for if, but when an abortion storm occurs.



# Symptoms of Q-Fever in Goats

- Goats do not show any sign they are infected until right before they abort or have stillborn kids in late gestation
  - They may have a lack of appetite and severe apathy one to two days before
- These symptoms do not confirm the existence of Q-Fever on your farm however, as there are many abortion diseases out there
- A normal miscarriage rate for goats is two to five percent
  - This could be from trauma from getting butted in the side, getting over excited when being worked (vaccinated/wormed/hoof trimming), or just because it doesn't stick
  - Any higher and a disease outbreak should be suspected and management protocol enforced



# Diagnosis

To determine the cause of an abortion, the following steps should be taken:

- Be certain you did not give a dewormer or medication that is known to cause abortions
  - Examples include Albendazole (Valbazen®) and Dexamethasone
- Refrigerate the fetus and placenta material
- Consult with a diagnostic laboratory and send it in
- Draw blood and send it in for a serological test
- In the meantime, isolate the infected animal and give a shot of a tetracycline



# How Q-Fever Spreads

Q-Fever can be spread through many ways, including:

- Direct contact between animals or their excretions (milk, urine, feces, birth products, etc.)
- Breathing in the particles suspended in the air
- Ticks and insects biting and transferring disease
- Grazing contaminated pasture



# Zoonotic Properties

Q-Fever is zoonotic, meaning it can be transmitted to other animals, including humans.

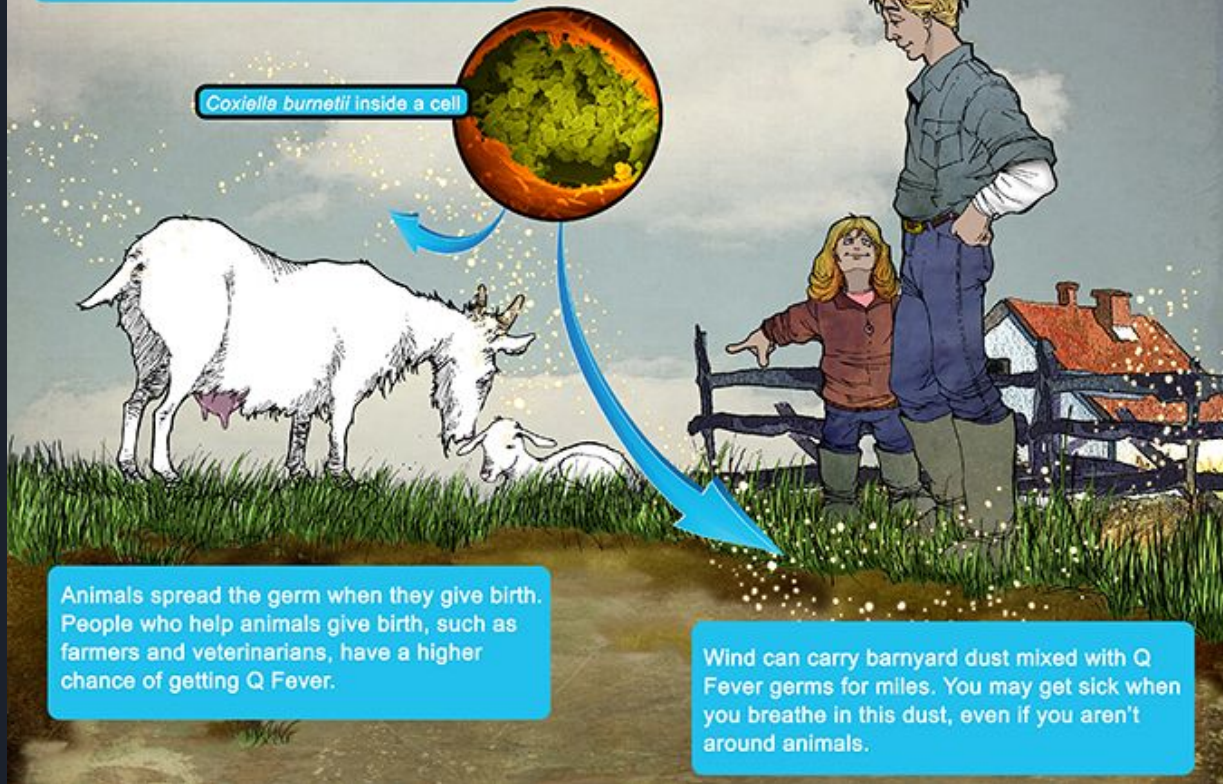
Symptoms in humans include:

- Fever
- Chills or sweats
- Fatigue (tiredness)
- Headache
- Muscle aches
- Nausea, vomiting, or diarrhea
- Chest pain
- Stomach pain
- Weight loss
- Non-productive cough

Pregnant women are also at risk of miscarriage, stillbirth, pre-term delivery, or low infant birth weight.

Q Fever is a flu-like sickness caused by the germ *Coxiella burnetii*. Goats, sheep, cows, and other animals carry the germ.

*Coxiella burnetii* inside a cell



Animals spread the germ when they give birth. People who help animals give birth, such as farmers and veterinarians, have a higher chance of getting Q Fever.

Wind can carry barnyard dust mixed with Q Fever germs for miles. You may get sick when you breathe in this dust, even if you aren't around animals.



# Management and Control

The number one rule when it comes to managing, controlling, and especially eradicating any disease is to STOP BUYING FROM THE SALE BARN AND START MAINTAINING A CLOSED HERD!!! Buying from a sale barn is the number one way to keep fighting with diseases forever, and you'll probably introduce new ones as well. However, maintaining a closed herd does not resolve the problem, it only keeps the problem from growing. Note that there is not a Q-Fever vaccine in the United States, so to best manage and control Q-Fever, the following precautions and actions should be followed:

- When buying a new animal, ask about abortion history in their herd
- Give a tetracycline to bred animals who are 1-2 months out from kidding
  - I prefer using LA 200 (Oxytetracycline)
- Lock up does who are nearing kidding
- Properly dispose of aborted/stillborn fetuses (if you didn't send them off to be tested), placentas, and contaminated bedding
  - Burning is preferred, but burying is acceptable as well
- Note that culling animals who aborted is not a long term eradication plan...you'd run out of goats!





# Keep Yourself Safe

- When handling aborted fetuses or placentas, wear disposable gloves at the very least.
  - Additional things to wear when handling these items include:
    - Protective clothing
    - Face mask to prevent breathing in the organism
- Wash hands after handling birth products.
- When drinking goat milk from a herd with a history of Q-Fever, first pasteurize it.
- If pregnant, minimize contact with animals.
- Remember, even if an animal isn't showing clinical signs, they could still be carrying the disease.



# Summary

Q-Fever is an infectious zoonotic disease that can and will cause great economic loss to a producer who has it on their farm. It can cause abortions and weak kids in goats, as well as humans. Because of the prevalence and devastating effects of this disease, it is imperative to have some level of biosecurity measures installed on your farm/ranch. While there is not a Q-Fever vaccine for goats yet in the United States, there are other ways to reduce the economic loss for producers. Tetracyclines are the main go-to for any abortion disease. To confirm the disease causing abortions in your herd, blood and birth products should be sent off for testing. If you have less than a five percent abortion rate per year, that is normal, but any higher than that, an outbreak should be suspected and material sent to a lab for testing.



# References

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